

阿根廷—智利边界案

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[案件导读]

本案涉及阿根廷和智利之间的陆地边界争端,¹ 关键问题是对仲裁裁决的解释与适用, 以及界河主河道的确定。1902 年, 两国就陆地边界争端完成了第一次仲裁, 但其后, 它们就裁决涉及的部分边界产生了新的争议。1964 年, 两国再次发起仲裁, 请求仲裁庭依据对 1902 年裁决的解释与适用, 在第 16 号界桩和第 17 号界桩之间未确定边界的范围内确定边界线的走向。1966 年, 仲裁庭做出裁决, 认为应当假定 1902 年裁决已确定了它所涉及的全部边界, 仅在裁决无法适用于实际地理情况时才存在例外, 即仲裁庭要解决的主要问题是: 在 1902 年裁决指定的界河恩古安特罗河分为两个河道的部分, 边界应沿哪个河道而行。仲裁庭确认了在这种情况下边界应沿主河道而行的原则, 并详细讨论了确定主河道的方法, 指明了确定主河道的主要标准, 丰富了国际水法中有关界河的法理与规则。本案对国际法的另一贡献是关于仲裁裁决解释规则的论述, 其结论“仲裁裁决解释应适用比条约解释更为严格的规则”对于仲裁裁决的解释有普遍指导意义。

[关键词]

边界争端, 界河, 分水岭、主河道、裁决解释、裁决履行、裁决适用、河道长度、流域面积、流量、直系连续性、河流分级法

一、阿根廷与智利边界争端的产生与发展

自 1810 年脱离西班牙独立之日起, 阿根廷和智利一直力图依据保持占有原则 (*Uti Possidetis Doctrine*) 确定双方的领土边界。两国 1855 年签订的《友好、贸易与航行条约》(Treaty of Friendship, Trade and Navigation) 确认, “缔约方 1810 年脱离西班牙时的边界即为各自的领土边界。”(第 39 条)

1881 年, 两国缔结了边界条约 (Boundary Treaty), 其中第一条规定:

“阿根廷与智利之间从北至南到南纬 52 度的边界是安第斯山脉的

¹ *Argentine-Chile Frontier Case*, 16 R. I. A. A. (1966), p. 109.

雁列山脉(Cordillera)。边界线应当在上述范围内沿雁列山脉中的最高峰而行, 它能分开水域(may divide the waters)并在向两边下倾的边坡(slopes)之间穿行……”²

该条款对边界位置进行了双重界定, 它预设的前提是边界沿线的地形线与水文线互相吻合, 即安第斯山脉的山脊与分水岭一致, 然而事实并非如此。两国就其南段的准确位置产生了争议, 阿根廷主张以分水岭为界, 智利则主张以山脊为界。1896 年, 两国政府签订了一项《边界协议》(Boundary Agreement), 把关于南纬 26° 52' 45" 以南边界的争议提交英国国王仲裁解决。

1902 年, 英王爱德华七世做出了仲裁裁决(award),³ 并附以详细描述边界线位置的仲裁庭报告(report)和地图。⁴ 此外, 英国政府应阿根廷和智利要求, 指定四名英国官员组成勘界委员会, 于 1903 年就裁决涉及的边界进行了勘界。

依据 1902 年裁决和仲裁庭报告, 帕莱纳—加利福尼亚段(Palena-California sector)的边界应从帕莱纳河(River Palena)与恩古安特罗河(River Encuentro)的交汇处开始, 沿恩古安特罗河到达维尔根峰(Virgen), 然后沿分水岭(local water-parting)到达帕兹将军湖(Lake General Paz)。⁵ 据此勘界委员会在帕莱纳河北岸、恩古安特罗河河口对面树立了第 16 号界桩, 在帕兹将军湖北岸树立了第 17 号界桩。

其后阿根廷和智利就 1902 年裁决涉及的部分边界又产生了新的争议, 特别是关于第 16 号界桩的位置, 以及第 16 号界桩与第 17 号界桩之间边界线的走向, 两国分歧严重。

1964 年 11 月 6 日, 两国发布共同宣言, 依据 1902 年两国签订的《关于仲裁的一般条约》(The General Treaty of Arbitration between the Argentine Republic and Chile, 下称《仲裁条约》), 将争议提交英国政府解决。1965 年 3 月 2 日, 英国政府指定了仲裁庭。因为双方当事国无法就仲裁协议达成一致, 英

² Art. 1 of the Boundary Treaty of 1881. See *Case concerning a boundary dispute between Argentina and Chile concerning the delimitation of the frontier line between boundary post 62 and Mount Fitzroy*, 22 R. I. A. A. (1994), para 21.

³ *Cordillera of the Andes Boundary Case* [Argentina v Chile], Award by His Majesty King Edward VII (1902), 9 R. I. A. A 37.

⁴ *Cordillera of the Andes Boundary Case* [Argentina v Chile], Report of the Arbitral Tribunal Appointed by the Arbitrator (1902), 9 R. I. A. A 39.

⁵ Article III, Award (1902), 9 R. I. A. A 39.

国政府于 1965 年 4 月 1 日依据《仲裁条约》确定了《仲裁协议》(Agreement for Arbitration/Compromiso)。《仲裁协议》第 1 条第 1 款规定, 仲裁庭应当审议以下问题:

“如果自 1902 年裁决以来, 双方当事国间位于第 16 号界桩和第 17 号界桩之间的边界未能完全确定 (unsettled), 那么在未确定边界的范围内, 依据对 1902 年裁决的适当解释与履行 (fulfillment), 该段边界线的走向如何?”

1966 年 11 月 24 日, 仲裁庭将其报告提交英国女王伊丽莎白二世, 女王于 12 月 9 日作出裁决, 并附以仲裁庭报告作为裁决的组成部分。

二、未确定边界的范围

仲裁庭指出, 仲裁协议要求它审议的问题中包含一个先决问题, 即:

“如果自 1902 年裁决以来, 双方当事国位于第 16 号界桩和第 17 号界桩之间的边界未能完全确定, 那么未确定边界的范围包括哪些部分?”⁶

仲裁庭认为, 既然 1902 年裁决是一个有效裁决, 那么应当假定它已确定了它所涉及的全部边界 (包括第 16 号界桩与第 17 号界桩之间的边界), 仅在裁决无法适用于实际地理情况时才存在例外。换句话说, 第 16 号界桩与第 17 号界桩之间未确定的边界范围是 1902 年裁决无法通过勘界落实在地面的部分。

1902 年裁决对第 16 号界桩与第 17 号界桩之间的边界是这样界定的:

“从帕莱纳河上的这个确定位置开始, 边界应当沿恩古安特罗河直达维尔根峰, 然后连接我们已在帕兹将军湖上确定的边界线……”。⁷

仲裁庭报告对这段边界作出了更为详细的描述:

“从帕莱纳河与恩古安特罗河接合点 (junction) 的对面开始, 边界应当沿恩古安特罗河西部支流而行, 直到它位于维尔根山西坡的源头。到达峰顶后, 它应当沿当地的分水岭 (local water-parting) 向南, 直到帕兹将军湖北岸。”⁸

⁶ *Argentine-Chile Frontier Case*, 16 R. I. A. A. (1966), p. 163.

⁷ Article III, Award (1902), 9 R. I. A. A 39.

⁸ Report of the Arbitral Tribunal Appointed by the Arbitrator (1902), 9 R. I. A. A 39.

根据以上描述，在第 16 号界桩（即帕莱纳河与恩古安特罗河接合点的对面）与维尔根山之间，两国边界应当沿恩古安特罗河而行，但是恩古安特罗河在其间某一点分成了两个河道，仲裁庭将该点称为汇流点（Confluence）。

仲裁庭裁定，位于第 16 号界桩与汇流点之间的边界，以及位于维尔根山与第 17 号界桩之间的边界，均已由 1902 年裁决和 1903 勘界确定：从位于帕莱纳河北岸的第 16 号界桩开始，边界线应当穿过帕莱纳河到达恩古安特罗河河口，然后沿恩古安特罗河到达汇流点；从维尔根山开始，边界应当沿当地的分水岭向南直至位于帕兹将军湖北岸的第 17 号界桩。

那么未确定边界的范围就是从汇流点到维尔根峰的部分，即第 16 号界桩与第 17 号界桩之间边界的中段。本案仲裁庭的任务就是通过解释与履行 1902 年裁决来确定这段边界。

三、仲裁裁决的解释规则

虽然当事国双方都同意仲裁裁决解释与条约解释有一定共通性，但阿根廷认为，仲裁裁决的特点使其不宜适用条约解释的一些原则，例如准备材料和当事国的嗣后实践不宜用来解释仲裁裁决。与之相反，智利主张仲裁庭在解释 1902 年裁决时应当考虑其背景文件，以及双方当事国嗣后解释裁决的方式。

仲裁庭认为，解释仲裁裁决的规则应当比解释条约的规则更加严格。因为条约是两个或更多的当事国谈判达成的结果，条约解释可能需从准备材料或缔约方的嗣后行为中寻找证据以确定缔约国缔约时的共同意愿；而仲裁裁决解释仅涉及仲裁员意愿的确定，背景材料或当事方的嗣后行为对此并无意义。就本案而言，仲裁庭认为，要确定仲裁员的意愿，只应考虑构成 1902 裁决的三项文件，即裁决自身、仲裁庭报告和裁决第 5 条提及的地图，而不需要考虑任何其它文件或当事方嗣后行为。⁹

四、仲裁裁决的“履行”问题

仲裁协议第 1 条提及应当“解释与履行 1902 年仲裁裁决”以确定争议边界

⁹ *Argentine-Chile Frontier Case*, 16 R. I. A. A. (1966), p. 174.

的走向。关于其中“履行”一词的含义，当事国双方存在不同理解。智利认为它主要是指当事国的“履行”，而非仲裁庭的“履行”。阿根廷则援引《简明牛津英语词典》，指出该用语的含义为“使完整，弥补缺失的部分”。阿根廷认为，在这种意义上，“‘履行’应当被视为一种强有力的表达方式，它准确地表述了阿根廷请求仲裁庭在边界线中段完成的任务。”¹⁰

仲裁庭认为，本案仲裁协议提及的“解释与履行”与其它众多仲裁协议中使用的“解释与适用”意义相同。之所以加上“适用（履行）”一词，是因为当事方有彻底解决争端的意愿，那么仅授权仲裁庭“解释”仲裁裁决是不够的。特别是对于边界争端而言，因为既涉及划界，又涉及勘界，仅仅对仲裁裁决进行“解释”可能无法彻底解决争端。因此，仲裁庭认为“解释与履行”是一个综合性的表述，它授权仲裁庭既考察 1902 年裁决，又考察 1903 年勘界，而且授权（甚至要求）仲裁庭在避免修改裁决的前提下，以尽可能符合仲裁员意图的方式弥补裁决的不足。仲裁庭同时指出，解释与履行裁决主要是仲裁庭的任务，虽然它在完成这一任务时当然要考虑当事方试图解释与履行裁决的方式。

五、1902 年仲裁庭报告与地图的错误及其影响

阿根廷认为，第 16 号界桩建在了错误的位置，因为依据 1902 年仲裁庭报告，“从帕莱纳河与恩古安特罗河接合点的对面开始，边界应当沿恩古安特罗河西部支流的水道直到它位于维尔根山西坡的源头，”¹¹而第 16 号界桩对面河流的源头并不在维尔根山的西坡，与仲裁庭报告的描述不符。智利则反复强调，第 16 号界桩的位置是正确的。

经仲裁庭确认，第 16 号界桩的对面是 1894 年智利探险家史蒂芬（Steffen）最早命名为“恩古安特罗河”的河流，这条河流及其支流的源头均不在维尔根山西坡；而 1902 年仲裁报告中源头位于维尔根山西坡的河流，事实上在 1886 年被智利探险家塞拉诺（Serrano）命名为萨尔托河（Salto）。与之相应，裁决所附地图上名为“恩古安特罗河”的界河实际上是塞拉诺命名的“萨尔托河”，而史蒂芬命名的恩古安特罗河在该地图上显示为无名河流。¹²

¹⁰ Memorial, para 220.

¹¹ Report of the Arbitral Tribunal Appointed by the Arbitrator (1902), 9 R. I. A. A 39.

¹² *Argentine-Chile Frontier Case*, 16 R. I. A. A. (1966), pp. 149-150.

仲裁庭指出,如果勘界委员会当初将第 16 号界桩树立在萨尔托河河口对面,也许会免去接下来的很多争议,但是另一种争议又会产生。仲裁庭认为双方当事国关于第 16 号界桩位置的争论是不会有结果的,特别是由于《仲裁协议》并未授权它审议第 16 号界桩的位置正确与否,更未授权它移动界桩。阿根廷自己也承认“它已无权迫使第 16 号界桩移动”。¹³ 因此,仲裁庭并未就当事国双方关于第 16 号界桩的争议做出裁定,而是直接接受 1903 年勘界委员会的决定,将第 16 号界桩对面的河流视为真正的“恩古安特罗河”。¹⁴

关于 1902 年仲裁裁决与仲裁报告和地图之间的矛盾,仲裁庭的处理方式是决定不考虑仲裁庭报告中的描述,而专注于解释裁决中简明、直接的表述:“边界应当沿恩古安特罗河直达维尔根峰。”¹⁵ 这样一来,仲裁庭要解决的核心问题就集中于:确认从汇流点到维尔根峰的边界应当沿哪个河道而行。

六、恩古安特罗河主河道的确定

(一) 双方当事国主张

从汇流点往维尔根峰方向,恩古安特罗河分为两个河道,阿根廷认为其中的南河道(Southern Channel)是作为界河的恩古安特罗河,智利则认为边界应沿恩古安特罗河的主河道即东河道(Eastern Channel)而行。

阿根廷的主要依据是 1903 年以来该地区河流命名法的发展、南河道的物理特征,以及南河道与恩古安特罗河干流的直系连续性(lineal continuity)。阿根廷主张:“对长度和流量的考虑都应从属于直系连续性……”¹⁶ 智利则指出,东河道的历史更久,流量更大,长度更长,源头位置更高。智利认为,这些因素,尤其是流量和长度因素,科学地证明了东河道是恩古安特罗河的主河道。

智利和阿根廷各自应用了一种河流分级方法来支持自己的主张。智利选择的是霍顿分级法(Horton method)。根据霍顿分级法,与河道分级相关的因素是河道数量、河道长度和流域面积。阿根廷则主张斯特拉勒分级法(Strahler method)是确定河道重要性级别的唯一客观方法。斯特拉勒认为:“河道分级系统的有效

¹³ *Argentine-Chile Frontier Case*, 16 R. I. A. A. (1966), p. 153.

¹⁴ *Argentine-Chile Frontier Case*, 16 R. I. A. A. (1966), p. 154.

¹⁵ *Argentine-Chile Frontier Case*, 16 R. I. A. A. (1966), pp. 176-177.

¹⁶ Argentine Supplementary Volume of Additional Documents, Annex NO. 63, p. 12.

性基于一个前提，即一般来说，当考虑一个足够大的样本时，河道的级别与分水岭规模、河道容积（channel dimension）以及河道在水系中的流量成正比。”

（二）确定界河主河道的原则与方法

仲裁庭首先确认了一个原则，即：当一个文件（如条约或裁决）规定边界沿河流而行，而河流分为两个或更多河道，且该文件没有指明边界应当沿哪条河道而行时，边界通常应当沿主河道（major channel）而行。

仲裁庭认为主河道既可以在历史依据的基础上确定，也可以在科学依据的基础上确定。

在历史依据方面，决定河流名称的首先是传统，如果有可靠证据证明河流的传统命名方法，例如河流的土著名或者第一发现者的命名，那么这些将是决定性的。如果这方面的证据缺失，其它历史证据也可以作为确定主河道的依据。

在科学依据方面，仲裁庭认为确定主河道的三项主要标准是河道长度、流域面积以及流量（最好按年度流量计算），尽管专家们对这三项标准的相对重要性有不同看法。¹⁷ 这些因素也是霍顿分级法和斯特拉勒分级法的基础。但在仲裁庭看来，这两种河流分级法对解决本案中的问题并无帮助。智利应用霍顿分级法确定东河道为主河道，阿根廷通过应用斯特拉勒分级法却并没有得出南河道是主河道的结论，而是确认两个河道的层级相同。而且，当事国使用的地图都不足以达到应用这些河流分级方法所需的比例尺和精度。

（三）确定恩古安特罗河主河道的历史依据

在本案中，关于河流传统命名方法的历史证据缺失。没有人知道恩古安特罗河河系中任何河流的印第安名称或者第一发现者对它们的命名，唯一可知的是1894年史蒂芬将其下游命名为“恩古安特罗河”。在1902年仲裁所附地图上，恩古安特罗河的两个支流同样没有名字。

然而仲裁庭认为，在1902年仲裁之后10年内，有一些其它的历史证据可以帮助确定恩古安特罗河的主河道。

第一项证据是1907年《阿根廷-智利边界——1894-1906综合勘界》（The Argentine-Chile Frontier - General Demarcation 1894-1906）第一卷的一篇文章及其所附地图。智利在其仲裁申请的第31号附件中汇编了该书的第228至

¹⁷ M. Roche, *Hydrologie de surface*, Paris, 1963, p. 152; Stephen B. Jones, *Boundary-Making*, Washington, 1945, pp. 129-130

235 页。这篇文章来源于阿根廷边界办公室的阿尔瓦雷斯（Alvarez）工程师向布宜诺斯艾利斯的边界主管人撒迦利亚·桑切斯（Zacharí Sánchez）提交的一份报告。阿尔瓦雷斯负责第 16 号界桩周边的测绘工作，他的报告所附地图是对恩古安特罗河河系的第一次合理而可靠的呈现。这张地图显示了 1902 年仲裁中提到的恩古安特罗河，它在第 16 号界桩西面与帕莱纳河交汇。地图中界桩对面这条真正的恩古安特罗河有两条河道，其中东河道的源头位于塞罗·赫雷罗山（Cerro Herrero）。阿尔瓦雷斯在报告中写道，“草图上的红线表明了这次仲裁的结果，同时可以看到界桩树立处的河流发源于赫雷罗山（Herrero）附近。”¹⁸ 因此，1907 年，即勘界四年后，负责对该地区进行官方测绘的阿根廷测绘人员确认东河道为恩古安特罗河的主河道。

第二项证据同样来源于阿根廷，因为智利在混合边界委员会成立之前没有在该地区进行过任何勘探或测绘。这项证据摘录于 1913 年 12 月 9 日从圣地亚哥的阿根廷公使馆发往智利外交部的一份正式备忘录。提及第 16 号界桩时，备忘录称，“这个界桩的位置并不在仲裁裁决指明的地方，即恩古安特罗河口的对面，而是在这一位置的东边，在发源于赫雷罗峰附近的另一条河的河口对面。”这也证明了东河道为恩古安特罗河的主河道。

上述证据都指明恩古安特罗河的源头位置在赫雷罗山附近，从而可以确认源头位于赫雷罗山附近的东河道为主河道，1941 年左右阿根廷外交部技术顾问柯伯斯（Cobos）工程师向外交部长提交的报告也证实了这种说法。柯伯斯在报告中指出：“自 1903 年勘界以来，所有测绘与勘探都证明恩古安特罗河的源头位于塞罗·赫雷罗山。”

（四）确定恩古安特罗河主河道的科学依据

仲裁庭按照确认河流主河道的三项主要标准，依次比较了东河道与南河道的河道长度、流域面积以及流量。

在河道长度方面，东河道长度约为 21.2 公里，而南河道长度仅有 8.5 公里。在流域面积方面，东河道的集水区面积有 8000 公顷，而南河道的集水区面积仅有 5300 公顷，二者的比例接近 5:3。

阿根廷并不接受河道长度、流域面积和流量为适当的分级标准。为了给南河

¹⁸ *Argentine-Chile Frontier Case*, 16 R. I. A. A. (1966), p. 178.

道长度较短、流域面积较小的不利情况辩护，阿根廷提及前冰川时期的河道容积以及后来水系类型（drainage pattern）的改变：“恩安古特罗河以前长约 36 公里。”¹⁹ 仲裁庭认为，阿根廷的这些说法无论是否属实，都与仲裁庭目前要解决的问题无关，因为仲裁庭要确定的，是 1902 年裁决之时及之后恩安古特罗河两河道的相对重要性。无论南河道是否为前冰川时期更长的恩安古特罗河的遗迹，重要的是，自 1902 年以来，包括在此之前的很长一段时间内，南河道的长度和流域面积都比东河道小很多。

关于流量的问题比较复杂，因为仅智利提交了测量数据，这些数据不足以作为计算年度流量的依据，且其中很多数据是在仲夏时取得，融雪期的大降雨会使东河道水量上涨得更快。然而，其它数据测于融雪因素可以忽略不计的干燥秋季，即 1966 年三月、四月和五月，这些数据显示东河道与南河道流量之比约为 2:1。仲裁庭认为，将这些数据与河道长度、流域面积数据，以及气候、降雨、海拔等因素结合起来考虑，可以得出东河道流量更大的可靠结论。这也与仲裁庭实地特派团（Field Mission）的观察一致。

智利为论证东河道的主河道地位，还提出了关于年代、坡度、水位与河床性质的论据，但仲裁庭认为这些都不具重要性。仲裁庭认为阿根廷倚重的“直系连续性”是一个值得考虑的重要因素。在单一河道向上游与较低层级河道连接时，斯特拉勒将直系连续性视为与河道长度同等重要的决定主河道的因素。然而，仲裁庭认为，斯特拉勒所说的“连续性”指的主要是河流两侧峡谷（containing valley）在其地貌发育史中形成的连续性。仲裁庭更加重视河道水流与干流之间一般动力（general force）的连续性，并认为这一点在东河道表现更为明显。

基于以上历史和科学证据，仲裁庭最终认定东河道是恩安古特罗河的主河道，即阿根廷与智利之间的界河。从汇流点到河流开始偏离维尔根峰方向的地点，两国间的边界线应沿该河的深泓线（thalweg）而行。

¹⁹ *Argentine-Chile Frontier Case*, Counter-Memorial, Vol. I, p. 60.

REPORTS OF INTERNATIONAL ARBITRAL AWARDS

RECUEIL DES SENTENCES ARBITRALES

Argentine-Chile Frontier Case

9 December 1966

VOLUME XVI pp. 109-182



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ARGENTINE — CHILE FRONTIER CASE ¹

PARTIES: Argentine, Chile

COMPROMIS: Agreement of 1st April, 1965 ²

ARBITRATOR: Elizabeth II, Queen of the United Kingdom of Great Britain and Northern Ireland ³

AWARD: 9 December, 1966

REPORT OF THE COURT OF ARBITRATION: 24 November, 1966

Delimitation of certain portions of the frontier-line between Argentine and Chile — Arbitral Award of 1902 — Interpretation and fulfilment of — Rules of interpretation as applied to an Award — Principle of Estoppel as applied in international law — Notion of critical date — Principles of determining boundary following a river.

Délimitation de certaines portions de la ligne frontière entre l'Argentine et le Chili — Sentence arbitrale de 1902 — Interprétation et application de la sentence — Règles d'interprétation applicables — Principe d'estoppel en droit international — Notion de la date critique — Détermination de la ligne frontière dans un fleuve

¹ For historical background of this case, *see infra*, p. 140

² For the text of compromis, *see infra*, p. 119

³ For the purpose of fulfilling their duties as Arbitrator Her Majesty's Government appointed a Court of Arbitration composed of the following three members: Lord McNair as President, Mr. L. P. Kirwan and Brigadier K. M. Papworth, and appointed Professor D. H. N. Johnson as Registrar of the Court of Arbitration.

AWARD OF HER MAJESTY QUEEN ELIZABETH II, PURSUANT
TO THE AGREEMENT FOR ARBITRATION (COMPROMISO)
DETERMINED BY THE GOVERNMENT OF THE UNITED
KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND
ON 1st APRIL 1965¹ FOR THE ARBITRATION OF A CONTRO-
VERSY BETWEEN THE ARGENTINE REPUBLIC AND THE
REPUBLIC OF CHILE CONCERNING CERTAIN PARTS OF
THE BOUNDARY BETWEEN THEIR TERRITORIES

WHEREAS the Argentine Republic and the Republic of Chile (herein-
after referred to as "the Parties") are parties to a General Treaty of Arbitra-
tion signed at Santiago on 28th May, 1902,² (hereinafter referred to as
"the Treaty of Arbitration"),

AND WHEREAS His Britannic Majesty's Government duly accepted the
duty of Arbitrator conferred upon them by the Treaty of Arbitration;

AND WHEREAS in pursuance of an agreement between the Parties dated
17th April, 1896³ His Majesty King Edward VII on 20th November 1902,
made an Award⁴ containing decisions upon certain parts of the boundary
between the territories of the Parties (hereinafter referred to as "the 1902
Award");

AND WHEREAS a controversy has arisen between the Parties concerning
the interpretation and fulfilment of part of the 1902 Award;

AND WHEREAS the Parties have been unable to determine the points,
questions, or differences involved in the controversy in accordance with
Article IV of the Treaty of Arbitration;

AND WHEREAS the Government of the Republic of Chile by letter dated
15th September, 1964, invited Our Government in the United Kingdom of
Great Britain and Northern Ireland to intervene as Arbitrator in the
controversy;

AND WHEREAS the Ministers for Foreign Affairs of the Parties, by Joint
Declaration made at Santiago on 6th November, 1964, agreed that the
present controversy should be settled by Our Government in the United
Kingdom in accordance with the provisions of the Treaty of Arbitration
and without prejudice to the attitude which both Parties had adopted in
the dispute;

AND WHEREAS the Government of the Argentine Republic by a letter
dated 25th November, 1964, and the Memorandum enclosed therewith,
assented to the settlement of the controversy by arbitration by Our Gov-
ernment in the United Kingdom;

AND WHEREAS Our Government in the United Kingdom, after consulta-
tion with the Parties, were satisfied that it would be appropriate for them to

¹ "Miscellaneous No. 17 (1965)", Cmnd. 2682.

² *State Papers*, Vol. 95, p. 759.

³ *State Papers*, Vol. 88, p. 553.

⁴ *State Papers*, Vol. 95, p. 162. See also Vol. IX of these *Reports*, p. 37.

act as Arbitrator in the controversy and that they were empowered to give effect to Article V of the Treaty of Arbitration;

AND WHEREAS Our Government in the United Kingdom, in pursuance of Article V of the Treaty of Arbitration, determined the Agreement for Arbitration (Compromiso) at London on 1st April, 1965;

AND WHEREAS for the purpose of fulfilling their duties as Arbitrator Our Government in the United Kingdom appointed a Court of Arbitration composed of the following three members,

Lord McNair as President,

Mr. L. P. Kirwan,

Brigadier K. M. Papworth,

and appointed Professor D. H. N. Johnson as Registrar of the Court of Arbitration;

AND WHEREAS the Parties have presented to the Court of Arbitration written pleadings and maps and other documents;

AND WHEREAS, having heard representatives of the Parties, the Court of Arbitration, by means of a Field Mission appointed by it, in December, 1965 and January and February, 1966 examined the area in dispute and arranged for an aerial survey of that area to be made under the guidance of the Court of Arbitration;

AND WHEREAS representatives of the Parties took part in oral hearings before the Court of Arbitration between 19th September and 21st October, 1966;

AND WHEREAS the Court of Arbitration has considered the question put before it by Article I of the Agreement for Arbitration (Compromiso) and has reported to Our Government in the United Kingdom its conclusions thereon, which it has reached in accordance with the principles of international law;

AND WHEREAS Our Government in the United Kingdom have fully and carefully studied the Report of the Court of Arbitration (a copy of which Report is annexed to, and constitutes an integral part of, this Award);

Now, in pursuance of Articles VIII and IX of the Agreement for Arbitration (Compromiso) and in the name of Our Government in the United Kingdom, We, ELIZABETH THE SECOND, by the Grace of God of the United Kingdom of Great Britain and Northern Ireland and of Our other Realms and Territories Queen, Head of the Commonwealth, Defender of the Faith, etc. etc. etc., make the following Award upon the question which has been the subject of this Arbitration, namely:

To the extent, if any, that the course of the boundary between the territories of the Parties in the Sector between boundary posts 16 and 17 has remained unsettled since the 1902 Award, what, on the proper interpretation and fulfilment of that Award, is the course of the boundary in that Sector?

1. From Boundary Post 16 on the north bank of the River Palena the boundary shall cross the Palena to the mouth of the River Encuentro. It shall then follow the thalweg of the Encuentro to Point A¹ at the Confluence. The boundary shall then turn eastwards and follow the thalweg of the Encuentro for about 16 kilometres to Point B. The line shall then turn

¹ The location of Point A and subsequent Points is shown on the diagram and air photographs incorporated in the annexed copy of the Report of the Court of Arbitration. The diagram is not intended as an authoritative map. It is only an index to the air photographs. These photographs are the sole authority for the exact location of the Points.

westwards and ascend by way of a small lake to the local water-parting at Point C. Thence it shall turn south and follow the local water-parting for about 2 kilometres to Point D. The boundary shall then turn west and follow the local water-parting for about 6 kilometres to Point E on the hills sometimes known as Cordon de los Morros. Turning south it shall follow the local water-parting for about 2 kilometres to point F. It shall then turn west along the local water-parting to Point G on top of a hill just east of the River Engaño. The boundary shall proceed by a straight line to Point H on a low hill west of the River Engaño, and thence by a straight line to Point I, on the water-parting north of Cerro de la Virgen. Turning southwards, it shall follow the local water-parting to Point J at Cerro de la Virgen. The boundary shall then follow the local water-parting southwards to the northern shore of Lake General Paz at Boundary Post 17.

2. This Award shall be executed by the demarcation of the course of the boundary in the sector between Boundary Posts 16 and 17 as established in paragraph 1 above, and by each of the Parties taking such other steps as may be necessary to carry out the Award.

3. The Director of Military Survey at Our Ministry of Defence in the United Kingdom (hereinafter referred to as "the Director") is appointed as the authority responsible for carrying out the demarcation in accordance with this Award and such further directions as may be given by or on behalf of Our Principal Secretary of State for Foreign Affairs. The Director shall appoint a Demarcation Mission for this purpose.

4. The Demarcation Mission shall consist of

- (i) an Officer of Our Land Forces, who shall be in charge of the Mission and
 - (ii) such Officers or Non-Commissioned Officers (not exceeding 3 in number) of Our Land Forces as may be appointed by the Director.
- The Director shall in writing notify the Agents of the Parties of the names of all such Officers and Non-Commissioned Officers, indicating which is the Officer in charge.

5. Each of the Parties shall appoint a Liaison Officer to accompany the Mission, and shall in writing notify the Director of the name of its Liaison Officer.

6. The official language of the Mission shall be English.

7. The Mission shall, so far as weather permits, begin the demarcation of the boundary not later than 7th January, 1967. It shall so arrange its work as to complete the demarcation of the boundary during the Southern summer of 1966-67, weather permitting.

8. The Mission shall erect a boundary post at each point identified in paragraph 1 of this Award, or, if necessary in order to take account of geographical realities, as close as possible to each such point within a distance of not more than 300 metres therefrom. If any such displacement occurs, the course of the boundary shall, if required, be revised by the Officer in charge of the Mission to the extent necessary for it to pass through the actual location of the boundary posts. Where it is not possible to erect a boundary post on the actual site on which it is otherwise desirable to place it, the post may be erected to one side of that site. In that case, a suitable inscription shall be made on the boundary post.

9. The Director shall, as soon as possible after the completion of the demarcation, submit to Our Government in the United Kingdom a report on the work of the Mission.

10. Each of the Parties shall as soon as possible within a period of six months from the date of the present Award notify in writing Our Principal Secretary of State for Foreign Affairs that it has taken all steps necessary to carry out the Award.

GIVEN in triplicate under Our hand and seal, at Our Court of St. James's, this Ninth day of December, One thousand Nine hundred and Sixty-six, in the Fifteenth year of Our Reign.

ELIZABETH R.
[L.S.]

Report of the Court of Arbitration

Members of the Court: Lord McNair.
Mr. L. P. Kirwan.
Brigadier K. M. Papworth.

Registrar: Professor D.H.N. Johnson

PART I

In the matter of the Argentine-Chile Frontier Case,
between
the Argentine Republic, represented by the following:

Agent:

His Excellency Señor Don José María Ruda, Ambassador Extraordinary
and Plenipotentiary.

Counsel:

Mr. Maurice Bathurst, C.M.G., C.B.E., Q.C.
Professor R. Y. Jennings, Whewell Professor of International Law,
University of Cambridge.
Mr. Mervyn Heald.

Experts:

Professor E. H. Brown, Department of Geography, University College
London. Geographical Adviser.
Professor F. A. Daus, Geographical Adviser to the Ministry of Foreign
Affairs and Worship, Buenos Aires.
Mr. D. J. Robinson, Department of Geography, University College
London. Geographical Adviser.
Mr. S. Dvoskin, Technical Adviser to the Ministry of Foreign Affairs
and Worship, Buenos Aires.

Other Advisers and Secretaries:

Señor S. N. Martínez, First Secretary in the Ministry of Foreign
Affairs and Worship, Buenos Aires.
Señor E. J. A. Candiotti, Second Secretary, Argentine Embassy,
London.
Señora E. K. de Guiborg, Third Secretary in the Ministry of Foreign
Affairs and Worship, Buenos Aires.
Señor C. A. Castilla, Third Secretary, Argentine Embassy, London.
Señora L. E. C. de Lemos, Administrative Officer, Argentine Embassy,
London.
Lieutenant-Colonel E. A. Marini, Cartographical Adviser.

Solicitors :

Messrs. Coward, Chance and Co.

and

the Republic of Chile, represented by the following :

Agents :

His Excellency Señor Don Víctor Santa Cruz, G.C.V.O., Ambassador Extraordinary and Plenipotentiary of Chile to the Court of St. James's, and on Special Mission.

His Excellency Señor Don José Miguel Barros Franco, Ambassador Extraordinary and Plenipotentiary of Chile on Special Mission.

Counsel :

Sir Humphrey Waldock, C.M.G., O.B.E., Q.C., Chichele Professor of Public International Law, University of Oxford.

Mr. Elihu Lauterpacht, Fellow of Trinity College, Cambridge, and Lecturer in Law, University of Cambridge.

Señor Don Julio Philippi, Professor of Civil Law, Catholic University of Santiago, Adviser to the Chilean Ministry for Foreign Affairs.

Advisers and Secretaries :

Senor Don German Carrasco, First Secretary, Chilean Embassy in London.

Lieutenant-Colonel Arturo Ayala. Geographical Adviser.

Mr. Eric Shipton, C.B.E. Geographical Adviser.

Dr. Robert P. Beckinsale, Senior Lecturer in Geography in the University of Oxford. Geographical Adviser.

Señor Don Ignacio Cox, Civil Attaché, Chilean Embassy, London.

Mr. John G. Collier, Fellow of Trinity Hall, Cambridge. Research Assistant.

Solicitors :

Messrs. Bischoff and Co.

THE COURT,

composed as above,

presents to Her Majesty's Government the following Report:

On 15 September 1964 the Chilean Ambassador in London, His Excellency Señor Don Víctor Santa Cruz, delivered on behalf of the Government of the Republic of Chile a Note addressed to Her Majesty's Principal Secretary of State for Foreign Affairs, the Right Honourable R. A. Butler, C.H., M.P. In this Note the Ambassador referred to the Award given by His Majesty King Edward VII on 20 November 1902 in the border dispute between the Republic of Chile and the Argentine Republic which had been submitted to the decision of the British Government under the Treaty between two Republics of 17 April 1896. He referred also to the General Treaty of Arbitration concluded between the two Republics on 28 May 1902. He went on to point out that by virtue of this later Treaty the British Government was appointed as Arbitrator in differences which might arise between the two countries. He next stated that he had been instructed to inform the Foreign Secretary that his Government had decided to have recourse to the Arbitration of Her Majesty's Government in respect of a

dispute which had arisen between Chile and the Argentine Republic concerning part of the Award of 1902. He identified the dispute as one with respect to the section of the frontier between Boundary Posts 16 and 17 and said that the two Governments had been unable to reach agreement on the meaning and effect of the 1902 Award in the sector concerned. They had also been unable to harmonise their views on an arbitral solution of the dispute. The Chilean Ambassador concluded his Note by requesting Her Majesty's Government to assume immediately the aforesaid functions of Arbitrator with respect to this case concerning a part of the Award of 1902, and to take the necessary steps for the Arbitration to proceed with the urgency required, as also in the meantime such interim measures as his Government might request in order to safeguard Chile's rights in the disputed area and which might be dictated by the prevailing circumstances.

On 20/22 October 1964 the Foreign Office addressed a Memorandum to the Embassies in London of the Argentine Republic and the Republic of Chile. In this Memorandum the two Governments were requested to say whether the points, questions or differences involved in the controversy referred to in the Chilean Ambassador's Note of 15 September 1964 had been determined by them, or whether Article V of the General Treaty of Arbitration should be regarded as being in operation by reason of the default of agreement in the matter between the two Governments.¹

On 2 November 1964 the Chilean Ambassador in London replied to the Foreign Office Memorandum confirming that, in his Government's view, Article V was now in operation.

On 25 November 1964 the Embassy of the Argentine Republic in London delivered to the Foreign Office a Memorandum in which that Government too confirmed that the Arbitrator had authority to make use of the powers conferred on him by Article V of the General Treaty of Arbitration of 1902. The Government of the Argentine Republic, however, pointed out that in their view there was already a settlement between the Parties, in conformity with Act No. 55 of 1 November 1955 of the Argentina-Chile Mixed Boundary Commission, regarding the frontier line comprised, in one sector, between Boundary Post 16 and the confluence of the rivers Falso Engaño and Encuentro and, in another sector, between Cerro de la Virgen and Boundary Post 17 on the north bank of Lake General Paz. Consequently, in exercising his powers under Article V of the General Treaty of Arbitration of 1902, the Arbitrator would, as regards these sectors, be restricted by Article II of the same treaty.² Meanwhile the Ministers for Foreign Affairs of the two Parties, meeting in Santiago on 6 November 1964, had already issued a Joint Declaration in which they agreed that the controversy should be settled by Her Majesty's Government in accordance with the provisions of the General Treaty of Arbitration.

On 2 March 1965 Her Majesty's Government appointed the Court of Arbitration composed of the following three members:

¹ Article V provides as follows:

In default of agreement either of the Parties shall be empowered to invite the intervention of the Arbitrator, whose duty it will be to determine the Agreement, the time, place, and formalities of the proceedings, as also to settle any difficulties of procedure as to which disputes may arise in the course of the arbitration. The Contracting Parties undertake to place all the information in their power at the disposal of the Arbitrator.

This text and that in following footnote is from the translation in *British and Foreign State Papers*, Vol. 95, p. 759.

² Article II provides as follows:

Questions which have already been the subject of definite settlement between the High Contracting Parties cannot, in virtue of this Treaty, be reopened. In such cases arbitration will be limited exclusively to the questions which may arise respecting the validity, the interpretation, and the fulfilment of such agreements.

Lord McNair as President,
Mr. L. P. Kirwan and
Brigadier K. M. Papworth.

On the same date Her Majesty's Government appointed Professor D. H. N. Johnson as Registrar of the Court of Arbitration.

On 24 March 1965 Notes were addressed to the Foreign Secretary by His Excellency Ambassador Ramón J. Vázquez, Representative at the Arbitral Tribunal, on behalf of the Argentine Republic, and by His Excellency Señor Don Víctor Santa Cruz, the Chilean Ambassador in London, on behalf of the Republic of Chile. In these Notes the two Governments undertook, pending the making of an Award in the controversy by Her Majesty's Government and its execution, to use their best endeavours to prevent the occurrence of any incidents in the vicinity of the boundary which was the subject of the present controversy and any other action which might in any way hinder Her Majesty's Government in fulfilling their functions as Arbitrer in that controversy.

On 1 April 1965, Her Majesty's Principal Secretary of State for Foreign Affairs, the Right Honourable Michael Stewart, M.P., signed on behalf of the Government of the United Kingdom of Great Britain and Northern Ireland the "Agreement for Arbitration (Compromiso) of a Controversy between the Argentine Republic and the Republic of Chile determined by the Government of the United Kingdom of Great Britain and Northern Ireland". The text of this instrument — henceforth referred to as "the Compromiso" — reads as follows:

Whereas the Argentine Republic and the Republic of Chile (hereinafter referred to as "the Parties") are parties to a General Treaty of Arbitration signed at Santiago on 28th May, 1902 (hereinafter referred to as "the Treaty of Arbitration");

And whereas His Britannic Majesty's Government duly accepted the duty of Arbitrator conferred upon them by the Treaty of Arbitration;

And whereas in pursuance of an agreement between the Parties dated 17th April, 1896, His Majesty King Edward VII on 20th November, 1902, made an Award containing decisions upon certain parts of the boundary between the territories of the Parties (hereinafter referred to as "the 1902 Award");

And whereas a controversy has arisen between the Parties concerning the interpretation and fulfilment of part of the 1902 Award;

And whereas the Parties have been unable to determine the points, questions, or differences involved in the controversy in accordance with Article 4 of the Treaty of Arbitration;

And whereas the Government of the Republic of Chile by letter dated 15th September, 1964, invited Her Majesty's Government to intervene as Arbitrator in the controversy;

And whereas the Ministers for Foreign Affairs of the Parties, by Joint Declaration made at Santiago on 6th November, 1964, agreed that the present controversy should be settled by Her Majesty's Government in accordance with the provisions of the Treaty of Arbitration and without prejudice to the attitude which both Parties had adopted in the dispute;

And whereas the Government of the Argentine Republic by a letter dated 25th November, 1964, and the Memorandum enclosed therewith, assented to the settlement of the controversy by arbitration by Her Majesty's Government;

And whereas Her Majesty's Government, after consultation with the Parties, are satisfied that it would be appropriate for them to act as

Arbitrator in the controversy and that they are empowered to give effect to Article 5 of the Treaty of Arbitration;

And whereas under Article 5 of the Treaty of Arbitration it is the duty of the Arbitrator to determine the Agreement (Compromiso), the time, place and formalities of the proceedings and to settle any difficulties of procedure as to which disputes may arise in the course of the arbitration;

And whereas for the purpose of fulfilling their duties as Arbitrator Her Majesty's Government have appointed a Court of Arbitration composed of the following three members,

Lord McNair as President,

Mr. L. P. Kirwan and

Brigadier K. M. Papworth

and have appointed Professor D. H. N. Johnson as Registrar of the Court of Arbitration;

And whereas the Parties have, pending the making of an Award in this controversy by Her Majesty's Government and its execution, undertaken to use their best endeavours to prevent the occurrence of any incidents in the vicinity of the boundary which is the subject of the present controversy and any other actions which might in any way hinder Her Majesty's Government in fulfilling their functions as Arbitrator;

Her Majesty's Government, in pursuance of the Treaty of Arbitration, have determined the Agreement (Compromiso) as follows: —

Article I

(1) The Court of Arbitration, acting in accordance with the provisions of the present Agreement (Compromiso) shall consider the following question and report to Her Majesty's Government its conclusions thereon:

To the extent, if any, that the course of the boundary between the territories of the Parties in the Sector between boundary posts 16 and 17 has remained unsettled since the 1902 Award, what, on the proper interpretation and fulfilment of that Award, is the course of the boundary in that Sector?

The formulation of the above question shall be without prejudice to any burden of proof.

(2) The Court of Arbitration shall reach its conclusions in accordance with the principles of international law.

Article II

(1) Each of the Parties shall within one month of the date of the signature of the present Agreement (Compromiso) appoint an Agent or Agents for the purposes of the Arbitration and shall communicate the name and London address of the Agent or Agents to the other Party and to the Court of Arbitration. If more than one Agent is appointed by either Party, they shall be authorised to act jointly and severally.

(2) The seat of the Court of Arbitration shall be in London.

Article III

(1) The Court of Arbitration shall, subject to the provisions of the present Agreement (Compromiso), after consultation with the Parties determine the order and dates of the delivery of written pleadings and maps and all other questions of procedure, written and oral, that may arise. The fixing of the order in which these documents shall be delivered shall be without prejudice to any question of any burden of proof.

(2) The Registrar shall notify to the Parties an address for the filing of their written pleadings and other documents.

Article IV

The official language of the Court of Arbitration shall be English. Each of the Parties shall be responsible for furnishing the Court of Arbitration with written English translations of any document or oral statement the original of which is in any other language.

Article V

Each Party shall give to any member of the Court of Arbitration and any of its staff, and to any authorised representatives of the other Party who have been requested by the Court of Arbitration to accompany the members of the Court of Arbitration, free access to its territory (including any disputed territory) on the understanding that the grant of such access shall in no way prejudice the rights of either Party as to the ownership of the territory to, on, through or over which such access is granted.

Article VI

In the event of the Parties jointly or the Court of Arbitration desiring a survey, by air or otherwise, for the purposes of the Arbitration, such survey shall be made under the guidance of the Court of Arbitration at the expense of the Parties.

Article VII

The Court of Arbitration is competent to decide upon the interpretation and application of the present Agreement (Compromiso).

Article VIII

The Award shall decide definitely each point in dispute and shall state the reasons on which each decision is based.

Article IX

The Award shall fix by whom, in what manner and the time within which it shall be executed, including any demarcation which the Award may direct, and the Court of Arbitration shall not be *functus officio* until it has approved any such demarcation and has notified Her Majesty's Government that in the opinion of the Court of Arbitration the Award has been executed.

Article X

The Award shall be legally binding upon both the Parties and there shall be no appeal from it, except as provided in Article 13 of the Treaty of Arbitration.

Article XI

Each of the Parties shall defray its own expenses and one half of the expenses of Her Majesty's Government in relation to the Arbitration.

Article XII

Should any member of the Court of Arbitration or the Registrar die or become unable to act, the vacancy shall be filled by Her Majesty's Government, and the proceedings shall continue as if such vacancy had not occurred.

Article XIII

The Award shall be notified to each of the Parties by delivery to the London address of its Agent or Agents.

In witness whereof the present Agreement (*Compromiso*) has been signed on behalf of the Government of the United Kingdom of Great Britain and Northern Ireland.

Done at London the first day of April, 1965, in the English language, in a single original, which shall be deposited in the archives of the Government of the United Kingdom, who shall transmit a certified true copy to the Government of the Argentine Republic and the Government of the Republic of Chile.

Michael STEWART

Shortly after the signature of the *Compromiso*, and in compliance with Article II (1) thereof, the Parties appointed Agents for the purposes of the Arbitration. The Government of the Argentine Republic appointed as its Agents His Excellency Señor Don Ramón J. Vázquez and His Excellency Señor Don José María Ruda. On 11 June 1965, however, Señor Vázquez resigned. The Government of the Republic of Chile appointed as its Agents His Excellency Señor Don Víctor Santa Cruz, and His Excellency Señor Don José Miguel Barros Franco.

In accordance with Article III of the *Compromiso* the Court has, after consultation with the Parties, determined the order and dates of the delivery of written pleadings and maps and all other questions of procedure, written and oral, that have arisen. On some occasions these questions have been determined by Orders made by the Court; on others by Notes on Procedure issued by the President or Registrar.

Thus, on 20 May 1965, the Court made an Order fixing 31 October 1965 as the time-limit for the filing of the Memorials by both Parties. By an Order made on 9 November 1965 — in confirmation of arrangements made with both Parties over the telephone — this time-limit was deferred until 1 December 1965, and the Memorials were duly filed on that date. On 6 January 1966 the Court made an Order fixing 2 May 1966 as the time-limit for the filing of the Counter-Memorials of both Parties. By an Order made on 11 May 1966 — again in confirmation of other arrangements made with the Parties — this time-limit was deferred until 20 June 1966, and the Counter-Memorials were duly filed on that date.

In the Order made on 20 May 1965 the Court requested the Parties to deliver, in advance of the filing of their Memorials, maps of the disputed area. It was made clear in the Order “(a) that the Parties shall in no way be prejudiced by the delivery of such maps, which shall be exclusively for the purpose of enabling the Court to consider the question of a survey of the disputed area, as provided for in Article VI of the Agreement for Arbitration (*Compromiso*); and (b) that additional maps may be annexed to the Memorials”.

In an Order made on 5 July 1965 the Court, after stating that it was desirable for the purposes of the Arbitration that a survey should be made as provided for in Article VI of the *Compromiso* and that the first step in the making of any such survey would be the taking of aerial photographs, requested the Parties to deliver to the Court maps showing the area which, in their view, should be photographed. The Parties were also authorised, if they desired, to submit, in addition to the maps, a short memorandum in explanation of their proposals concerning the area which, in their view,

should be photographed. It was made clear in the Order that "such proposals (including any explanatory memorandum) made by the Parties, as well as any decision taken by the Court concerning the area to be photographed, shall be entirely without prejudice to the question of any map that may eventually be prepared under the guidance of the Court or to any question concerning the merits of the case".

Accordingly, on 2 August 1965, after further consultations with the Parties, the Court made another Order in which it decided that aerial photography should be taken within the area defined by the following points:

<i>Point</i>	<i>Longitude West</i>		<i>Latitude South</i>	
	°	'	°	'
A	72	00	43	17
B	71	30	43	17
C	71	30	43	30
D	71	15	43	30
E	71	15	43	38
F	71	07	43	38
G	71	07	44	00
H	71	30	44	00
J	71	30	44	05
K	72	00	44	05

The Court further requested Her Majesty's Government in the United Kingdom, in consultation with the Government of the Argentine Republic and the Government of the Republic of Chile, to arrange for the above-mentioned area to be photographed, and again placed on record that the proposals of the Parties concerning the area to be photographed, as well as the decision of the Court, were entirely without prejudice to the question of any map that might eventually be prepared under the guidance of the Court or to any question concerning the merits of the case.

After putting the contract out to tender, Her Majesty's Government appointed Fairey Surveys Limited to carry out the aerial photography and subsequent mapping that might be required.

In an Order made on 10 November 1965 the Court appointed to its staff Major W. D. Rushworth, Royal Engineers, and Staff Sergeant M. G. Browning, Royal Engineers, and decided to establish a Field Mission composed as follows: Mr. L. P. Kirwan (in general charge of the Mission), Brigadier K. M. Papworth (Director of Aerial Survey), Major W. D. Rushworth (Chief Technical Officer in liaison with Fairey Surveys Limited,) and Staff Sergeant M. G. Browning.

The Field Mission was charged with the duty of directing the aerial photography and of making a reconnaissance of the ground. In an Order made on 2 December 1965 the Court appointed to its staff Mr. S. W. Chapman and also added him to the staff of the Field Mission as Interpreter.

Between 29 December and 31 December 1965 preliminary oral hearings were held in London in the court-room of the Performing Right Tribunal which was at that time situated in the Public Trustee Office in Kingsway, W.C.2. During these hearings statements were made on behalf of the Government of the Argentine Republic by their Agent and also by Mr. Maurice Bathurst; and on behalf of the Government of the Republic of Chile by their Agents and also by Sir Humphrey Waldock and Mr. Elihu Lauterpacht.

It had previously been made clear to the Parties, in Notes from the President on 15 December 1965 and from the Registrar on 25 November

1965, that it was not desired that at these preliminary oral hearings the Parties should embark on any presentation of their legal arguments, but rather that they should direct their arguments to physical facts — “for instance, the precise location of the rivers, tributaries, lakes, basins, mountains, peaks, surface water-partings, and other physical features which are mentioned in the 1902 Award and are relevant to the Sector of the boundary between posts 16 and 17 and any other relevant local factors to which the Parties may wish to refer in the course of their arguments”. The Court also put to the Parties on 15 December 1965 certain questions of a geographical and historical nature which were answered orally by the Parties at the preliminary hearings.

In his Note of 15 December 1965 the President had further stated as follows:

One of the objects of the Field Mission is to supplement from visual observation the information contained in the Memorials. The Court notes that very extensive information on land use, which is essential to complete the geographical picture, has been received from Chile but little such information has been received from the Argentine Republic. Since it is not the purpose of the Field Mission to take evidence in the field and since there may be no opportunity for a further visit by the Field Mission, will the Agent for the Government of the Argentine Republic suggest ways of overcoming this difficulty?

At the preliminary oral hearings the Agent for the Argentine Republic explained that in his Government's view acts of the Parties on the ground were legally irrelevant to the determination of the question submitted to the Court by the Compromiso. Notwithstanding this reservation he suggested that his Government be allowed to file with the Court, on or before 14 January 1966, a Memorandum on Land Use. After considering the matter, the Court authorised both Parties to submit, not later than noon on 14 January 1966, supplementary memoranda containing such further information relating to land use, settlement and circulation of local trade as they might desire. The Court declared that it was understood that the deposit of this information should be without prejudice to the question of its legal relevance, which question the Parties might deal with in the Counter-Memorials.

The Government of the Argentine Republic availed itself of this authorisation and filed on 14 January 1966 a “Memorandum on Land Use, Settlement and Circulation of Local Trade”.

The Field Mission visited the disputed area between December 1965 and February 1966. An account of its visit will be found in Part II of this Report.

On 25 March 1966 the Court sent to both Parties five sets of the aerial photographs.

On 2 June 1966 the Court, through a letter from the President, informed the Parties that “When the time comes for the Court to report its conclusions to the Arbitrator, it will probably find it convenient to illustrate the course of any part of the boundary remaining unsettled since the 1902 Award by reference to the photographs resulting from the aerial survey.” The Court has found it so convenient (see Parts V and VI, below).

In the same letter of 2 June the Court drew the attention of the Parties to Article IX of the Compromiso which states as follows:

The Award shall fix by whom, in what manner and the time within which it shall be executed, including any demarcation which the Award may direct, and

the Court of Arbitration shall not be *functus officio* until it has approved any such demarcation and has notified Her Majesty's Government that in the opinion of the Court of Arbitration the Award has been executed.

Commenting on this, the President's letter stated:

Consequently, it will be for the Arbitrator in the Award to give all necessary directions in the matter of demarcation, the Court's duty being confined to that of approving the demarcation and notifying the Arbitrator that in the opinion of the Court the Award has been executed. The map now being prepared by Fairey Surveys Limited will be needed for the purposes of demarcation.

At the time of writing this Report, it is possible for the Court to say that a Provisional Edition of the map is in an advanced state of preparation. All future arrangements, including the demarcation and the production of a Final Edition of the map, will be in the hands of Her Majesty's Government.

On 17 March 1966, after consulting the Parties, the Court made an Order in which it decided that the area to be mapped should lie within the following points:

Point	Longitude West ° ' "	Latitude South ° ' "
A	72 00	43 30
B	71 22½	43 30
C	71 22½	44 00
D	72 00	44 00
A	72 00	43 30

On 2 August 1966 the Court made an Order authorising both Parties, if they so desired, to file on 29 August 1966 a Supplementary Volume containing additional documents, it being understood that brief explanations might also be added for the purpose of identifying the relevant documents. Both Parties availed themselves of this authorisation.

On 8 September 1966 the Court made an Order, appointing Professor R. O. Jones, Cervantes Professor of Spanish in the University of London, as Court Expert in the Spanish language.

On 12 September 1966 the Court addressed certain questions to the Parties to which they replied in writing.

Between 19 September 1966 and 21 October 1966 oral hearings were held in London, first at Lancaster House, St. James's, and later at the Royal Geographical Society, Kensington Gore. During these hearings oral arguments were presented on behalf of the Government of the Argentine Republic by their Agent and also by Mr. Maurice Bathurst, Professor R. Y. Jennings and Mr. Mervyn Heald; and on behalf of the Government of the Republic of Chile by their Agents and also by Sir Humphrey Waldock and Mr. Elihu Lauterpacht.

In the Memorials the following Submissions were presented by the Parties:

On behalf of the Government of the Argentine Republic:

- (1) The essential legal validity of the 1902 Award is in no way in issue in the present Arbitration.
- (2) The 1902 Award settled in principle the entire boundary in the Sector between Boundary Posts 16 and 17.
- (3) It is for the Party wishing to show that any part of the boundary in

the Sector between Boundary Posts 16 and 17 remains "unsettled" to prove the extent of the boundary so remaining unsettled.

- (4) The mistake which existed at the time of the 1902 Arbitration does not render the 1902 Award a nullity, either in whole or in part.
- (5) The effect of such mistake must be confined to those parts of the 1902 Award that it actually rendered inaccurate.
- (6) The part of the boundary line in the Sector between Boundary Post 16 and the confluence of the River Encuentro and the River Falso Engaño, is along the course of the River Encuentro, and this part was finally settled by the 1902 Award or, alternatively, by the relevant unanimous decision of the Mixed Boundaries Commission in Act No. 55 in 1955.
- (7) The part of the boundary between the confluence of the River Encuentro and the River Falso Engaño, and the source of the River Encuentro, at the graphical co-ordinates established by the Mixed Commission in Act No. 55, is along the remaining length of the course of the River Encuentro as depicted on Maps Nos. A30 and A31, and this part was settled by the 1902 Award, subject only to identification by this Court of the course of the River Encuentro upstream of the confluence of the River Falso Engaño with the River Encuentro.
- (8) The part of the boundary in the Sector between the source of the River Encuentro, as above described, and Cerro de la Virgen should be determined by this Court, according to the proper interpretation and fulfilment of the 1902 Award, as follows:
a line from the source of the River Encuentro, as above described, thence crossing the Portezuelo de las Raíces to the northernmost point of the River Engaño, and thence along the latter's course southwesterly downstream to its confluence with the River El Salto; thence upstream along that river to its source on the western slopes of Cerro de la Virgen, and thence ascending to that peak.
- (9) The part of the boundary line from Cerro de la Virgen to Boundary Post 17 follows the local water-parting southwards to that Boundary Post and that part was finally settled by the 1902 Award or, alternatively, by the relevant unanimous decision of the Mixed Boundaries Commission in Act No. 55 in 1955.
- (10) If this Court were not to accept the submissions summarised under points (6), (7) and (9) above, the course of the boundary in the Sector, on the proper interpretation and fulfilment of the 1902 Award, is in any event as follows:

Crossing the River Carrenleufu at Boundary Post 16, opposite the confluence of the River Encuentro with the River Carrenleufu, the boundary shall follow the River Encuentro to its source north of the Portezuelo de las Raíces; thence crossing the Portezuelo de las Raíces to the northernmost point of the River Engaño, and thence along the latter's course southwestwards downstream to its confluence with the River El Salto; thence upstream along that river to its source on the western slopes of Cerro de la Virgen. Ascending to that peak, it shall follow the local water-parting southwards to the northern shore of Lake General Paz at Boundary Post 17.

The line is marked on Map No. A54 as a combination of the continuous and dotted lines shown thereon.

On behalf of the Government of the Republic of Chile :

On the basis of the foregoing contentions, the Government of Chile submits that, applying the principles of international law, the Court of Arbitration should reach the following conclusions:

- (A) On a proper interpretation of the 1902 Award, in accordance with its terms and in the light of the actual geographical facts, the course of the boundary between the territories of the Parties in the Sector between Boundary Posts 16 and 17 is a line which, beginning at Post 16, runs along the River Encuentro to its source on the western slopes of the Pico de la Virgen, ascends directly to that Peak and thence runs continuously along the elevated local water-parting to Post 17.
- (B) The fulfilment of the 1902 Award by the Parties during the period between 1902 and 1952 when the present dispute arose confirms that the interpretation set out in paragraph (A) of these Submissions is the proper interpretation of the 1902 Award in the light of the actual geographical facts.
- (C) The diplomatic correspondence exchanged between the Parties in 1913-14 and the open, effective and continuous display of State activity by Chile in California, without any objection from Argentina, in the period before the present dispute arose in 1952 establish the existence of an understanding and implied agreement between the Parties that, in the light of the actual geographical facts, the 1902 Award is properly to be interpreted as prescribing as the boundary between the territories of Chile and Argentina the line set out in paragraph (A) of these Submissions.
- (D) Having regard to the understanding and implied agreement referred to in the preceding paragraph, even if the Court of Arbitration were to have any doubt as to the correctness of the interpretation set out in paragraph (A) of these Submissions, that interpretation must be considered to be the proper interpretation of the 1902 Award as between Chile and Argentina.
- (E) Equally, having regard to the Submissions in preceding paragraphs (C) and (D), the Argentine Government was precluded in 1952 and is precluded in the present proceedings from contesting that the interpretation of the 1902 Award set out in paragraph (A) is the proper interpretation of that Award.
- (F) It follows from the preceding Submissions that on the critical date, namely 25th July 1952, when the Argentine Gendarmerie first intervened in the River Encuentro and California areas and Argentina began, in face of the protests of the Chilean Government, to attempt to display State activity to the west of the boundary line defined in paragraph (A), Chile already possessed a valid title to the areas in question. It also follows that any activity of the Argentine Government with respect to those areas was illegal and invalid.
- (G) In addition, the Argentine Government is precluded from contesting that the status of California in 1952 was Chilean by reason of its express recognition of that fact in August of that year in response to a protest made by the Chilean Government regarding the intervention of the Argentine Gendarmerie referred to in the preceding paragraph.

- (H) The purported "approval" by the Mixed Boundary Commission in Minute 55 of a line drawn northwards from Post 17 to the Cerro Virgen and of a line drawn southwards from Post 16 to the junction of the Arroyo López with the River Encuentro as segments of the boundary in the Sector between Posts 16 and 17 did not constitute a settlement of the boundary in that segment binding upon Chile under the Protocol of 1941 relating to the Replacement and Setting up of Boundary Posts on the Chilean-Argentine Frontier.
- (I) The resolutions and proposals of the Mixed Boundary Commission recorded in Minute 55 having all been rejected by Chile, no definite settlement of any part of the boundary in the Sector between Posts 16 and 17 has taken place between the Parties since 1952 within the meaning of Article 2 of the General Treaty of Arbitration of 1902.
- (J) If, contrary to the Submission in paragraph (H), the purported "approval" by the Mixed Boundary Commission of the lines referred to in that paragraph is to be considered as in other respects fulfilling the conditions of a definite settlement between the Parties of two segments of the boundary, that settlement was nevertheless invalid in respect of the line drawn northwards from Post 17 to the Cerro Virgen by reason of its being based on a fundamental error of fact regarding the location of the course and source of the River Encuentro. Consequently, even on such a hypothesis, there is no definite settlement between the Parties of that segment of the boundary in the Sector between Posts 16 and 17, as alleged in the Memorandum from the Argentine Embassy in London to the Foreign Office, dated 25th November 1964.
- (K) Therefore, acting in accordance with the provisions of Article I of the Compromiso, the Court of Arbitration should report to Her Majesty's Government that, on the proper interpretation and fulfilment of the 1902 Award, the course of the boundary between the Parties in the Sector between Boundary Posts 16 and 17 is:

Starting from Post 16, the boundary follows the River Encuentro upstream from its junction with the Palena to the point, at approximately 43° 30' 30" South, where it changes its general north to south direction to one from west to east, and then continues to follow the river in an easterly direction to its source on the western slopes of the Pico de la Virgen, a mountain of some 2,100 m. height situate towards the northern end of the cordon of high mountains comprising Co. Central and Co. Condor, named Cordon de las Vírgenes. From this Peak the line follows the local water-parting southwards to Post 17: that is to say, the line is projected southwards along the water divide touching the highest summits of the Cordón, of which the heights are 1,970 m., 2,100 m., 1,940 m. and 1,930 m. From the last of these heights the line continues along the said Cordón de las Vírgenes following the high summits, then circling the Lagunas del Engaño (*i.e.*, Lakes Engaño, Redonda, Berta and Blanca), crossing between them and Lake Huacho, then taking an orientation to the west through heights of 1,776 m., 1,800 m., 1,760 m. and 1,770 m.; and finally turning south to Post 17 (the line herein described being delineated on Map No. CH.26 annexed to the present Memorial).

In its Counter-Memorial the Government of the Argentine Republic made no further formal Submissions; but the following Submissions were

presented by the Government of the Republic of Chile in its Counter-Memorial:

On behalf of the Government of the Republic of Chile:

1. On the basis of the considerations, evidence and contentions set out in its Memorial and in the present Counter-Memorial, the Chilean Government maintains the Submissions presented to the Court in Chapter V of Part Five of the Chilean Memorial.

2. On the basis of these same considerations, evidence and contentions the Chilean Government submits that the Court of Arbitration should now reach the following further conclusions:

- (L) The Submissions of the Argentine Government summarised in Chapter X of its Memorial, together with the arguments and detailed submissions presented in the preceding Chapters thereof, should be rejected except in so far as they are not in conflict with the contentions and submissions contained in the Chilean Memorial and Counter-Memorial.
- (M) The boundary line defined and submitted to the Court's consideration in Paragraphs 6 to 10 of the Argentine Submissions, with the exception of the part between Post 16 and the confluence of the major and minor channels is not the course of the boundary which results from the consideration of the question referred to the Court in Article I of the Compromiso, and must be rejected by the Court, *inter alia*, on the following grounds:
 - (i) The Argentine version of the boundary line is not justifiable as a "proper interpretation" of the 1902 Award. The method of interpretation adopted by Argentina disregards the cardinal rule of interpretation that the terms of an instrument must be interpreted in the context of the whole instrument and in the light of its objects and purposes. It further disregards the effect of the geographical error in rendering ambiguous or obscure the meaning of the Award and inadmissibly excludes any reference to the real intentions of the 1902 Tribunal in Article III of its Award.
 - (ii) The Argentine method of interpreting piecemeal the provisions of the Award relating to the Post 16-Post 17 sector of the boundary without regard to the continuity or completeness of the boundary is wholly inadmissible and in flagrant contradiction with the evident intention of the Tribunal to lay down a single, continuous and complete boundary for the sector. Furthermore, this method of interpretation includes a recourse to the principle of the separability of provisions which is illegitimate in the case of the provisions formulating a single, continuous and complete boundary line, and which also has no place in the interpretation of instruments independently of questions of nullity, termination, suspension and the like.
 - (iii) The Argentine version of the boundary line is not justifiable as a "proper interpretation" of the 1902 Award equally because it is in flagrant conflict with a cardinal provision in the Award itself under which the Tribunal allotted to Chile the river basins of all rivers entering the River Palena below Post 16.

- (iv) The Argentine version of the boundary line is again not justifiable as a "proper interpretation" of the 1902 Award because it is irreconcilable with the whole concept of the boundary as it appears in Article III: namely, of a continuous unbroken line proceeding from north to south along the course of the River Encuentro to its source on the slope of a mountain forming part of a high watershed along which the boundary would continue to Post 17. It is further irreconcilable with that concept in that it does not follow the true course of the River Encuentro and does not proceed and ascend continuously along a river line to the high watershed. On the contrary, it introduces alternate land and river elements not provided for in the Award, introduces four additional river elements not contemplated in the Award, and for some distance descends one of these in a manner wholly out of keeping with the boundary described in the Award. In addition, it arbitrarily divides the subordinate river basins of the River Salto-Engaño system in a way which is in direct conflict with the principles applied in Article III of the Award.
- (v) The Argentine version of the boundary line is also not justifiable under the Compromiso because it disregards the fulfilment of the Award by the Parties, as evidenced by the diplomatic correspondence of 1913-14, Chile's administrative activity in the area to the south and west of the major channel, and the treatment by both parties of the major channel as the boundary line for a considerable period.
- (vi) The interpretation which Argentina seeks to give to "fulfilment" in the Compromiso in order to provide a justification for her version of the boundary line puts an inadmissible construction on Article I of the Compromiso and at the same time presupposes that the Court will adopt an inadmissible method of interpreting piecemeal Article III of the Award.
- (vii) Contrary to the contentions of the Argentine Government in Paragraphs 6 and 9 of its Submissions, no part of the boundary line between Posts 16 and 17 was finally settled by any unanimous decision of the Mixed Boundary Commission in Minute No. 55 in 1955 for the reasons explained in Part III of the Chilean Memorial and the corresponding part of the present Counter-Memorial and summarised in the contentions and submissions of the Chilean Government in Chapters III and V of Part Five of its Memorial.
- (viii) The Argentine version of the boundary line, in addition to being in conflict with the whole concept of the boundary laid down and the principles stated in the 1902 Award, is on practical grounds open to the strongest objections throughout a large part of its length. Among these objections is the fact that it disregards and disrupts the natural transit routes connecting the different valleys of the area and the links of these valleys with the town of Palena. Another is the fact that the "minor channel" is a completely impractical international boundary in a populated mountain valley. A third is the fact that in the valleys of the minor channel and of the Rivers Engaño and Azul the Argentine line would divide certain of

the landholdings or separate a landholder from one of the plots which he possesses in the area. A fourth is the fact that the line would split in two the small isolated community of human beings in the mountain valleys, leaving some of the Chilean families of this community within Chile and converting others into dwellers in a foreign country.

In the oral proceedings the following Submissions were presented by the Parties:

On behalf of the Government of the Argentine Republic:

At the hearing on 27 September 1966:

The Submissions of the Argentine Republic are that:

- (1) The validity of the 1902 Award is not in issue in the present Arbitration.
- (2) The 1902 Award settled in principle the entire boundary line between the north bank of the River Carrenleufu (Palena) and the northern shore of Lake General Paz.
- (3) Although Boundary Post 16 was not placed at the obligatory point fixed by the Arbitrator in 1902, its placing opposite the mouth of the actual River Encuentro by the Demarcation of 1903 was a valid exercise of authority by the British Demarcating Commission, and was legally binding upon the Parties.
- (4) It is for the Party wishing to show that any part of the boundary line in the Sector between Boundary Posts 16 and 17 remains "unsettled" to prove the extent of the line so remaining unsettled.
- (5) The mistake which existed at the time of the 1902 Arbitration did not render the 1902 Award a nullity, either in whole or in part.
- (6) The mistake affected only those parts of the 1902 Award that it actually rendered unclear. This mistake consisted of a mistake in nomenclature whereby the name Encuentro was attributed to a river system which is in fact that of the River Salto, together with a mistaken depiction of the lower reaches of that river.
- (7) The part of the boundary line in the Sector between Boundary Post 16 and the confluence of the River Falso Engaño with the River Encuentro, is along the course of the River Encuentro, and this part was finally settled by the 1902 Award together with the Demarcation of 1903, or, alternatively, by the relevant unanimous decision of the Mixed Boundaries Commission, as plotted on their Sheet VII-3, Map A31, and recorded in Act No. 55 in 1955.
- (8) The part of the boundary between the confluence of the River Falso Engaño with the River Encuentro, and the source of the River Encuentro, at the graphical co-ordinates established by the Mixed Commission in Act No. 55, is along the remaining length of the course of the River Encuentro as depicted on the Mixed Boundaries Commission Sheets VII-2 and VII-3, Maps Nos. A30 and A31, and this part was settled by the 1902 Award together with the Demarcation of 1903.
- (9) The part of the boundary in the Sector between the source of the River Encuentro, as above described, and Cerro de la Virgen remains unsettled and should be determined by this Court, according to the proper interpretation and fulfilment of the 1902 Award, as follows:
a line from the source of the River Encuentro, as above described,

thence crossing the Portezuelo de las Raíces to the northernmost point of the River Engaño, and thence along the latter's course south-westerly downstream to its confluence with the River Salto; thence upstream along that river to its source on the western slopes of Cerro de la Virgen, and thence ascending to that peak.

- (10) The part of the boundary line from Cerro de la Virgen to Boundary Post 17 follows the local water-parting southwards from that peak to that Boundary Post and that part was finally settled by the 1902 Award or, alternatively, by the relevant unanimous decision of the Mixed Boundaries Commission, as plotted on their Sheets VII-1 and VII-2, Maps Nos. A29 and A30, and recorded in Act No. 55 in 1955.
- (11) If this Court were not to accept Submissions (7), (8) and (10) above, the course of the boundary in the Sector, on the proper interpretation and fulfilment of the 1902 Award, is in any event as follows:
 Crossing the River Carrenleufu from Boundary Post 16, opposite the confluence of the River Encuentro with the River Carrenleufu, the boundary shall follow the River Encuentro to its source north of the Portezuelo de las Raíces thence crossing the Portezuelo de las Raíces to the northernmost point of the River Engaño, and thence along the latter's course southwestwards downstream to its confluence with the River Salto; thence upstream along that river to its source on the western slopes of Cerro de la Virgen. Ascending to that peak, it shall follow the local water-parting southwards to the northern shore of Lake General Paz at Boundary Post 17.
- (12) The Parties have not reached, either through diplomatic correspondence, or otherwise, any common understanding, either express or implied, as to the line of boundary now proposed by Chile, or any part of that line.
- (13) The word "fulfilment" in Article I(1) of the Agreement for Arbitration (Compromiso) does not have the meaning claimed for it by Chile, but even if that were to be held to be its meaning, the Parties have not by their subsequent acts fulfilled the Award in the sense claimed by Chile, or at all.
- (14) Chile is precluded from claiming the line of boundary now contended for in its pleadings by reason of the fact that maps published officially by Chile between 1902 and 1952 have shown a line inconsistent in the material parts with that claimed in these preceedings.
- (15) The Submissions of the Government of Chile set out in Part Five, Chapter V, of the Chilean Memorial and the Chilean Counter-Memorial, together with the arguments and detailed Submissions contained in those pleadings should be rejected by the Court except insofar as they are not in conflict with the arguments and Submissions of Argentina contained in its Memorial, its Counter-Memorial and these present Submissions.

On behalf of the Government of the Republic of Chile:

At the hearing on 10 October 1966:

Having regard to the considerations, evidence and contentions set out in the Chilean Memorial, Counter-Memorial and oral arguments, the Government of Chile submits as follows:

- (1) The 1902 Award determined the course of the boundary between the River Palena and Lake Palena or General Paz by providing for a continuous, integrated, boundary which should run from a selected obligatory point in the Palena Valley to a second selected obligatory point at the narrows of Lake General Paz.
- (2) The obligatory point in the Palena Valley provided for in the Award is a point on the North bank "opposite the junction of River Encuentro". The reference longitude $71^{\circ} 47'$ West is only an approximate and auxiliary indication of the location of that junction.
- (3) The location of the said obligatory point was fixed in 1903 by its identification in conformity with the Award by the Demarcation Commission, set up expressly to fix on the spot the boundary marks determined by the Award, and by the erection of Post 16 by the said Commission at the place so identified. In consequence, Post 16 was thereby established as the obligatory point provided for in the Award.
- (4) In any event, the demarcation of the said obligatory point at Post 16 on 16 March 1903 by the said Commission under the Protocol of 1902 established, in a manner binding upon the Parties as from that date, the location of the obligatory point at Post 16.
- (5) The location of the obligatory point provided for in the Award at the narrows of Lake General Paz was similarly identified and established by its demarcation by said Commission.
- (6) The course of the boundary between Posts 16 and 17 described in the Award was one which was to run from Post 16 along the River Encuentro to its source on the slope of a mountain forming part of a watershed and would thence continue along the watershed to Post 17.
- (7) The Cerro Virgen and the watershed of which it forms part were mentioned in the Award as that mountain and watershed only because, in consequence of certain geographical errors, the Tribunal wrongly believed:
 - (a) the source of the River Encuentro to be on the western slopes of the Cerro Virgen; and
 - (b) the watershed from the Cerro Virgen to Post 17 to be such as would leave all the upper basins of the Palena Valley above Post 16 to Argentina and the lower basins below Post 16 to Chile.
- (8) In fact:
 - (a) Neither the River Encuentro nor any of its affluents has its source on any slope of the Cerro Virgen or of any mountain in the watershed of which the Cerro Virgen forms a part.
 - (b) The watershed of which the Cerro Virgen forms a part is a water-parting inside the basin of the same river, the Salto, a river which enters the River Palena below Post 16; and this watershed does not therefore leave all the lower basins below Post 16 to Chile but severs the basin of the River Salto, leaving part of that basin to Argentina.
- (9) The above-mentioned geographical errors resulted from cartographical errors introduced by Argentine experts into the Second Argentine Map which was presented to the 1902 Tribunal towards the close of the proceedings and was not communicated to Chile, if at

all, until after the Tribunal had made its decisions regarding the course of the boundary. Since this Map was used by the 1902 Tribunal as the basis of the Map annexed to its Award, Argentina has the sole responsibility for the geographical error which was the cause of the misdescription of the boundary in the present Sector.

- (10) The effect of the said errors on the Award Map was:
 - (a) to depict the junction of the River Encuentro with the River Palena to the west of its true position and at a place where no river enters the River Palena;
 - (b) to depict the lower section of the River Encuentro as running southwards from the River Palena across the mountains where no river has its course;
 - (c) to depict the River Engaño as a tributary of the River Encuentro instead of as a tributary of the River Salto;
 - (d) to depict the River Azul, together with its affluent the Arroyo Matreras, as a tributary of the River Encuentro instead of the River Salto; and
 - (e) in consequence, to make the fictitious course of the River Encuentro so depicted (hereafter called the Phantom River) appear as having its source on the western slopes of the Cerro Virgen.
- (11) The Award Map contained another error derived from the Second Argentine Map which, if a minor error, was of importance since it affected the depiction of the mouth and lower section of the real Encuentro in the cartography of the Parties for many years thereafter. This error, apparently having its origin in a mistake by the Argentine expert Bach, consisted in representing the real River Encuentro as entering the River Palena, not to the south of the Paso Serrano as it actually does, but to the north of that gorge where in fact the River Cajón enters the River Palena.
- (12) The circumstances in which the said geographical errors, which were not present in the First Argentine Map submitted to the 1902 Tribunal, came to appear in the Second Argentine Map have not been fully clarified in the present proceedings.
- (13) Argentina became aware of the existence of the said geographical errors on the Award Map and on the Second Argentine Map very shortly after the erection of Boundary Post 16 opposite the mouth of the true Encuentro by the British Demarcation Commission. But she did not, it appears, notify either the Demarcation Commission or the Arbitrator of the said errors; nor did she notify the Government of Chile.
- (14) The Demarcation Commission, unaware of the said errors, marked the position of Post 16 on the Award Map not at the place of the confluence of the real River Encuentro with the River Palena, but at the place shown on the Map as the imaginary confluence of the Phantom River. In addition, taking its co-ordinates for Post 16 from the Second Argentine Map, the Commission gave as the co-ordinates of Post 16 those applicable on the Map to the confluence not of the real River Encuentro but of the Phantom River.
- (15) As a result, the Award Map contained no indication of any divergence between the mouth, course and source of the real Encuentro

and the mouth, course and source of the Phantom River; and had the effect of impeding the Government of Chile's appreciation of the existence and nature of the geographical errors.

- (16) Argentine, although aware of the geographical errors in the Award Map and of the fact of the true location of Post 16 opposite the mouth of the real River Encuentro, continued on her official maps to depict the boundary running along the Phantom River and thence to the Cerro Virgen along tributaries of the River Salto.
- (17) At the same time, however, both Argentine and Chilean Maps consistently from 1903 to about 1945 depicted, in addition to the Phantom River, the course of an unnamed river which corresponds, save (in some cases) for the distortion of its lower section referred to in paragraph 11 above, to the approximate course of the real Encuentro. And in these Maps this unnamed real Encuentro was shown as having its sources in the Cordón de las Vírgenes, either in the vicinity of the Cerro Herrero or, more generally, in the mountains situated between the Cerro Herrero and the Cerro Central.
- (18) During all this period Argentina, in the internal documents of its experts and in diplomatic Notes of 1913-15 addressed to Chile, recognised that the river opposite whose mouth Post 16 is located — the real River Encuentro — has its sources in the vicinity of the Cerro Herrero. She further recognised that, if Post 16 remained where it was, opposite the mouth of the real Encuentro, the boundary provided for in the Award would be deflected from the Cerro Virgen to the vicinity of the Cerro Herrero.
- (19) During this period, without bringing the geographical errors regarding the Phantom River to the attention of Chile in its diplomatic Notes, the Argentine Government attempted to procure from Chile the removal of Post 16 from the mouth of the real Encuentro to that of the Salto well to the west of the Phantom River.
- (20) Chile at that time was taking her geographical information regarding the area from the Argentine cartography in the Award Map and had not undertaken any exploration of the area. While unaware of the full implications of the Argentine diplomatic Notes, Chile did not assent to the moving of the boundary post erected as Post 16 by the Demarcation Commission.
- (21) In consequence, at the end of this period (*i.e.* 1945) Post 16 remained opposite the mouth of the real Encuentro which in the cartography of both Parties was represented as having its sources in the vicinity of the Cerro Herrero.
- (22) During this period, on the other hand, the "minor channel" was for some time not represented at all in the cartography of either Party; and, when it eventually appeared on the Maps of Argentina and Chile, the "minor channel" was represented in an imprecise manner and as a mere appendage to the "major channel". In short, the representation of the minor channel during the period 1902-45 in the cartography of both Parties was wholly incompatible with its being considered as constituting the main watercourse of the River Encuentro or as providing the source of that river.
- (23) The representation of the real Encuentro in the cartography of both Parties during this period as the river opposite Post 16 and having its source in the vicinity of the Cerro Herrero corresponds

also with the actual geographical facts. That the course of the River Encuentro upstream of the confluence of the "major" and "minor" channels is the course followed by the Major Channel, which has its source in the Cordón de las Vírgenes south of the Cerro Herrero, is established by, *inter alia*, the following physical characteristics:

- (a) the lineal continuity of channel and hydraulic force between the Major Channel and the lower section (and, *per contra*, the lineal discontinuity between the minor channel and the lower section);
 - (b) the greater length, volume and drainage area of the major, as compared with the minor, channel;
 - (c) the similarity of bed load between the major channel and the lower section; and
 - (d) subsidiarily, the greater age and incision of the major channel.
- (24) During this period, therefore, the Chilean Government had every justification for considering that the river opposite the mouth of Post 16 — the real River Encuentro — constituted the international boundary; that the boundary ran along the course of this river to its source near the Cerro Herrero; and that Chilean settlement and Chilean administration to the west and south of this river would be in fulfilment, not contravention, of the 1902 Award.

(25) In fact:

In the period subsequent to 1902 the Award has been fulfilled by the Parties in a manner which is consistent only with the belief that the boundary line followed the River Encuentro along the major channel to its source in the Cordón de las Vírgenes and thence by the water-parting to Boundary Post 17 and that the disputed area is therefore part of the Chilean territory.

The evidence relating to the fulfilment of the Award establishes, *inter alia*, that:

- (i) In the period from 1902 to 1928 those who settled in the disputed area were Chilean and when settling there they regarded the area as lying on the Chilean side of the boundary. Thereafter, they accepted that application to the disputed area of Chilean administrative acts and by their conduct attorned to the Chilean authorities.
- (ii) The settlers who came to the disputed area after 1928 were Chilean and came there with the deliberate intention of settling in Chilean territory.
- (iii) Particularly in the period from 1928 onwards there has been a gradual development of Chilean administration in the disputed area, as reflected in such classes of activity as the application of a formal system of land tenure, the collection of taxes, the registration of births, deaths and marriages, the registration of animal marks, the registration of legal transactions, the exercise of civil and criminal jurisdiction over persons within the disputed area, the exercise of authority by the Carabineros, and the provision of education and public health services.
- (iv) At no time have the residents of the disputed area ever treated the minor channel as the international boundary.

- (v) As early as 1928 the residents east of the minor channel and south of the major channel were treating the major channel as the international boundary.
 - (vi) In 1934 the major channel was specifically identified by name as the River Encuentro.
 - (vii) There is no evidence of comparable Argentine activity or settlement.
- (26) The Court is entitled and bound to take notice of, recognise and give effect to the continuing Chilean character of the settlement and administration of the disputed area, and of the clearly evidenced assimilation of the residents of the disputed area into the life and administrative system of the immediately adjacent Chilean community of Palena.
- (27) That the fulfilment of the Award by the Parties on the ground was in conformity with the 1902 Award is confirmed by the proper interpretation of the Award, which both Parties have accepted should be interpreted and applied in the light of the real geographical facts.
- (28) The description in the Award of the course of the boundary between Posts 16 and 17 was totally ruptured by the geographical error relating to the location of the source of the River Encuentro on the western slopes of the Cerro Virgen. In consequence, the proper interpretation of the Award under international law requires that the course of the boundary should be determined by reference to the real intentions of the 1902 Tribunal with respect to the boundary in the Sector. This intention is, in turn, to be ascertained by interpreting the provision of the Award applicable to the Sector in its context in the Award as a whole and in the light of the objects and purposes of the Award.
- (29) Interpretation of the Award in the manner stated in the preceding paragraph shows that in the area covered by Article III:
- (a) A dominating consideration guiding the 1902 Tribunal in its delimitation of the boundary between the two countries was to establish a line which would "combine the conditions of an elevated watershed with geographical continuity".
 - (b) In conformity with and in application of this dominating consideration the Tribunal, when intersecting transverse valleys which cross the Cordillera sought to establish a line which would leave all the upper basins above the point of intersection to one country and all those below that point to the other country; and any exceptions to this principle were made the subject of express provisions in the Award.
- (30) Except for the express delimitation of the boundary along the thalweg of the River Encuentro, the Tribunal must be considered as having intended to determine the boundary between Posts 16 and 17 in accordance with the general principles stated in the preceding paragraph.
- (31) A line drawn from Post 16 along the lower section and major channel of the River Encuentro to the source of the latter on the slopes of the Cordón de las Virgenes in the vicinity of the Cerro Herrero and thence along the elevated watershed of that Cordón to Post 17 conforms to the principles stated in paragraph 29.

- (32) It follows that the boundary from Post 16 along the River Encuentro as understood and acted upon by the Parties in the period 1903 to 1945 was in conformity with the proper interpretation of the 1902 Award.
- (33) Furthermore, Argentina, by her representations to Chile in her diplomatic Notes of 1913-15 regarding the course and source of the river whose mouth is opposite Post 16, was and still now is precluded from denying that the boundary follows the course of a channel which has its source in the vicinity of the Cerro Herrero.
- (34) The general considerations set out in the foregoing paragraphs establish that, when the Mixed Boundaries Commission began to consider the demarcation of the Sector between Posts 16 and 17, the Chilean Government was peacefully and openly treating the areas now in dispute as part of Chile. They also show that she was doing so on the assumption that the lower section and the major channel constituted at once the River Encuentro and the international boundary. They further show that Argentina was until then acting upon the same assumption.
- (35) The evidence shows that after 1945 the Argentine Boundaries Commission and Gendarmerie gradually but persistently attempted to construct a basis for a new interpretation of the 1902 Award and for the presentation of a new Argentine claim to the areas now in dispute. The attempts took the form of: (a) periodical and then increasingly frequent incursions of Gendarmerie into these areas; and (b) the preparation of maps representing the "minor channel" as the River Encuentro and labelling the true Encuentro as the River "Engaño", "Engaño (falso)" or finally "Falso Engaño".
- (36) The evidence shows that the Chilean Commission, although from time to time taken off their guard by the incorrect nomenclature on the Argentine maps, maintained the position that the major channel constitutes alike the course of the River Encuentro and of the international boundary. The evidence also shows that the Chilean Commission took up this position in the proposals for the tracing of the boundary line which it submitted to the Mixed Commission at the meeting of October/November 1955.
- (37) The evidence shows that the Chilean Government itself also maintained the position described in paragraph 36 in diplomatic Notes to the Argentine Government regarding incursions by Gendarmes among the Chilean settlements. In particular, in diplomatic Notes regarding an incident of 25 July 1952 the Chilean Government protested specifically in regard to an apparent claim by the Gendarmerie to treat the "minor channel" as the boundary.
- (38) In reply to its protest regarding the incident mentioned in the preceding paragraph, the Chilean Government received what it understood to be assurances in regard to the apparent claim of the Gendarmerie to treat the minor channel as the boundary. The Chilean Government in a further Note set out its interpretation of these assurances, saying that it had been informed that the River Encuentro is on the boundary and California is Chilean. To this statement of the Chilean Government's interpretation of the assurances no exception was taken by Argentina at that date.
- (39) Having regard to the diplomatic exchanges referred to in the pre-

vious paragraph, Argentina is precluded from claiming that the "minor channel" is the Encuentro and from contesting the Chilean status of California.

- (40) The resolutions of the Mixed Commission in Minute 55 relating to the boundary between Posts 16 and 17 were rejected by Chile *in toto* by the President in a statement of 24 February 1956 ordering that the position should be restored to the position existing prior to the meeting of October/November 1955 at which Minute 55 had been approved; and also in a diplomatic Note of 18 April 1956.
- (41) None of the resolutions or conclusions recorded in Minute 55 respecting the boundary between Posts 16 and 17 are in any way binding upon Chile, *inter alia*, for the following reasons:
 - (a) The Mixed Commission lacked all competence to adopt any interpretation of the effect of the geographical errors upon the meaning to be given to the 1902 Award that could be binding upon the two Governments without their consent.
 - (b) No authority had been conferred by the Chilean Government on the Chilean Commission to arrive at a determination of the boundary otherwise than in accordance with the 1902 Award and the procedures of the 1941 Protocol.
 - (c) Minute 55 was not a special Minute such as is prescribed by Article 6 of the 1941 Protocol to give definitive effects to decisions of the Mixed Commission.
 - (d) The Commission is incompetent to approve definitively any line or point as constituting part of the boundary in a Sector between two existing Posts until the whole course of the boundary between those Posts has been identified and it has thereby been established that the line or point indubitably forms part of the boundary laid down for the whole Sector.
 - (e) Under the procedure and practice of the Commission the work of the Commission does not acquire definitive character until its work for the whole Sector is complete.
 - (f) In any event, the resolutions in Minute 55 are vitiated by the erroneous representation of the geographical facts on the Commission's survey maps which formed the basis for the adoptions of those resolutions.
- (42) The purported determination of the source of the River Encuentro recorded in Minute 55 is without any legal value evidentiary or otherwise in the present proceedings since:
 - (a) The Chilean Government rejected the resolutions in Minute 55 and restored the position to what it was prior to the meeting at which the Minute was adopted.
 - (b) The purported determination was made as part of a compromise and with reference only to the so-called western branch of the Encuentro.
 - (c) The purported determination was made on the basis of maps which misrepresented the material facts.
 - (d) The purported determination is contrary to the scientific evidence and cannot be justified by reference to any power of appreciation of facts, which in any event were misrepresented on the maps.

- (43) No settlement or determination of any part of the boundary between Posts 16 and 17 having been reached through the proceedings of the Mixed Boundary Commission, the boundary falls to be determined by the Court in accordance with the position obtaining between the Parties in fact and in law independently of those proceedings.
- (44) The position which obtains between the Parties in fact and in law in relation to the disputed area is essentially that which grew up between them in respect of the area between 1903 and 1945.
- (45) During that period Chile treated, as of right and in conformity with the proper interpretation of the 1902 Award, the major channel as the international boundary and established Chilean administration within that boundary. Chilean activity and administration since that date has been no more than a continuance and gradual development of the position previously established by her in the area and is therefore relevant to confirm the interpretation of the 1902 Award which governed the conduct of the Parties prior to 1945. In other words, it is relevant to confirm that on the proper interpretation of the Award, the boundary in the Sector runs along the major channel to its source in the Cordón de las Vírgenes and thence along the watershed to Post 17.
- (46) During the period between 1903 and 1945 Argentina equally treated the "major channel" as the international boundary. Argentina's activity within the disputed area since that date is in consequence not a continuance of previous activity but a new activity encroaching upon Chile's established rights. This activity, being illegal and invalid, must be excluded from the Court's consideration in determining the course of the boundary under the Compromiso.
- (47) In addition, Argentina is in law precluded from contesting that, on the proper interpretation of the Award, the boundary is the "major channel" and from contesting that the disputed areas are Chilean by reason of:
 - (a) Argentina's representations in the diplomatic correspondence of 1913-15 that the river opposite Post 16 has its source in the Cerro Herrero;
 - (b) Argentina's assurances in the diplomatic correspondence of 1952 regarding Argentine claims in the valley of the minor channel.
- (48) The submissions of the Argentine Government should be rejected save in so far as they are not in conflict with the Chilean contentions and submissions.
- (49) Therefore, acting in accordance with the provisions of Article I of the Compromiso, the Court of Arbitration should report to Her Majesty's Government that, on the proper interpretation and fulfilment of the 1902 Award, the course of the boundary between the Parties in the Sector between Boundary Posts 16 and 17 is:

Starting from Post 16, the boundary follows the River Encuentro upstream from its junction with the Palena to the point, at approximately 43° 30' 30" South, where it changes its general north to south direction to one from west to east, and then continues to follow the river in an easterly direction to its source on

the western slopes of the Pico de la Virgen, a mountain of some 2,100 m. height situate towards the northern end of the cordon of high mountains comprising Co. Central and Co. Condor, named Cordón de las Vírgenes. From this Peak the line follows the local water-parting southwards to Post 17: that is to say, the line is projected southwards along the water-divide touching the highest summits of the Cordón, of which the heights are 1,970 m., 2,100 m., 1,940 m. and 1,930 m. From the last of these heights the line continues along the said Cordón de las Vírgenes following the high summits, then circling the Lagunas del Engaño (*i.e.*, Lakes Engaño, Redonda, Berta and Blanca), crossing between them and Lake Huacho, then taking an orientation to the west through heights of 1,776 m., 1,800 m., 1,760 m. and 1,770 m.; and finally turning south to Post 17 (the line herein described being delineated on Map No. CH.26 annexed to the Chilean Memorial).

- (50) The Government of Chile reserves the right, should the need arise in the light of the Argentine reply in the present oral proceedings, to supplement or amend these Submissions prior to the conclusion of these hearings.

Both Parties maintained their respective Submissions intact at the end of the oral proceedings. These Submissions will therefore be referred to as their "Final Submissions".

This concludes the first Part of this Report, the remainder of which is arranged as follows. Part II contains a description of the historical and geographical background of the case, and also an account of the visit to the disputed area of the Field Mission established by the Court.

Part III deals with the exploration and mapping of the disputed area before the Award of 1902; the 1902 Award Map; the demarcation of 1903; and the identification of geographical features involved in the 1902 Award and the 1903 demarcation. Part IV contains an account of the development of the problem from 1903 to 1964. In Part V the points in dispute are discussed and decided. Finally, Part VI sets out the Court's conclusions on the Question put to it in Article I of the Compromiso.

PART II

A. HISTORICAL BACKGROUND

The history of the boundary negotiations between Argentina and Chile dates back to a Treaty between them of 30 August 1855¹ (which became effective on 3 April 1856). This provided that the two countries should retain the territories which they possessed in 1810, at the time of their separation from Spain. It also provided for the settlement of boundary controversies by peaceful means, and, in the event of disagreement, for their submission to the arbitration of a friendly nation—a provision constantly repeated in boundary treaties and agreements between the two countries.

More immediately related to the present case is the Treaty between the two countries of 23 July 1881.² This stipulated that the boundary should follow the main Cordillera of the Andes as far as 52° S. and that it should

¹ *State Papers*, Vol. 49, p. 1200.

² *State Papers*, Vol. 72, p. 1103.

moreover follow the line of the highest peaks of the mountains, passing between the sources of the streams flowing down to either side. This stipulation, which assumed that the line of the highest peaks always coincided with the line of the surface water-parting, was to prove an insuperable obstacle to complete agreement.

In a Protocol to this Treaty, signed on 1 May 1893,¹ the implications of this boundary line were set out in specific terms. The Argentine Republic, according to the Protocol, was to hold in perpetuity all territory to the east of the line of the highest peaks which divide the waters while the Republic of Chile was to hold in perpetuity all territory to the west of that line.

On 17 April 1896 a new agreement was signed to ease the execution of the earlier Treaty and Protocol. In the extreme north and as far south as 26° 52' 45" S. demarcation was to be carried out with the co-operation of the Bolivian Government. Any difficulties arising south of this point, as far south as 52° S. — a distance of approximately 2,900 kilometres — were to be submitted to arbitration by Her Majesty's Government.

Under this new agreement considerable progress was made in this southern stretch, with parts of which Great Britain was to be concerned. By September 1896, four substantial sections of the boundary had been agreed. One apparently insuperable obstacle remained, however. In those parts where the line of the highest peaks and the line of the surface water-parting did not coincide, no progress could be made.

This left four sections to be submitted to British arbitration under the Treaty of 1896: from San Francisco Pass at 26° 52' 45" S. to 27° 2' 50" S.; in the region of Lake Lacar from 40° 6' 1" S. to 40° 9' 39" S.; from Pérez Rosales Pass at 41° 12' 18" S. to Mount Fitzroy, near Lake Viedma at 48° 53' 10" S.; and the stretch from 50° 38' 10" S. to 52° S.

Queen Victoria had already accepted the office of Arbiter in July 1896 in case the need arose, and in November 1898 both countries formally submitted the dispute to her. Early in the following year, first Argentina, then Chile, submitted their cases. Meanwhile, Queen Victoria had appointed the members of the Arbitration Tribunal; the Right Honourable Lord Macnaghten, Lord of Appeal in Ordinary; Major-General Sir John C. Ardagh, Director of Military Intelligence; and Colonel Sir Thomas Hungerford Holdich, a Vice-President of the Royal Geographical Society; with Major S. C. N. Grant, Royal Engineers, as Secretary. Major Grant was later succeeded as Secretary by Major E. H. Hills, Royal Engineers.

Before the Arbitration Tribunal could report, Queen Victoria died in January 1901. She was succeeded by King Edward VII as Arbiter, and by a Protocol signed in Santiago on 28 May 1902² Argentina and Chile invited the Arbiter to appoint a Commission to fix on the ground the boundary to be determined by his Award.

The Arbitration Tribunal carried out its work, including an extensive, if incomplete, reconnaissance in the field with exemplary and, it seems, very necessary speed. On 19 November 1902 the Tribunal reported, and the following day the Award was made by King Edward VII.³

The Award of 20 November 1902 consisted of a Preamble and five operative Articles. The first four Articles contained the decisions upon the four questions referred to arbitration, and Article V provided as follows:

¹ For the texts of the Treaty of 23 July 1881 and the Protocol of 1 May 1893, see Vol. IX of these *Reports*, pp. 45 and 46.

² *State Papers*, Vol. 95, p. 764.

³ Vol. IX of these *Reports*, p. 37.

A more detailed definition of the line of frontier will be found in the Report submitted to Us by Our Tribunal, and upon the maps furnished by the experts of the Republics of Argentina and Chile, upon which the boundary which We have decided upon has been delineated by the members of Our Tribunal, and approved by Us.

The area now in dispute came under Article III of the Award. This Article provided as follows:

From Pérez Rosales Pass near the north of Lake Nahuel Huapi, to the vicinity of Lake Viedma, the boundary shall pass by Mount Tronador, and thence to the River Palena by the lines of water-parting determined by certain obligatory points which we have fixed upon the Rivers Manso, Puelo, Fetaleufú, and Palena (or Carrenleufú); awarding to Argentina the upper basins of those rivers above the points which we have fixed, including the Valleys of Villegas, Nuevo, Cholila, Colonia de 16 Octubre, Frio, Huemules, and Corcovado; and to Chile the lower basins below those points.

From the fixed point on the River Palena, the boundary shall follow the River Encuentro to the peak called Virgen, and thence to the line which we have fixed crossing Lake General Paz, and thence by the line of water-parting determined by the point which we have fixed upon the River Pico, . . .

The relevant passage in the Report (in paragraph 22) reads as follows:

Crossing the Fetaleufú River at this point, it shall follow the lofty water-parting separating the upper basins of the Fetaleufú and of the Palena (or Carrenleufú or Corcovado) above a point in longitude $71^{\circ} 47' W.$, from the lower basins of the same rivers. This water-parting belongs to the Cordillera in which are situated Cerro Cónico and Cerro Serrucho, and crosses the Cordón de las Tobas.

Crossing the Palena at this point, opposite the junction of the River Encuentro, it shall then follow the Encuentro along the course of its western branch to its source on the western slopes of Cerro Virgen. Ascending to that peak, it shall then follow the local water-parting southwards to the northern shore of Lago General Paz at a point where the Lake narrows, in longitude $71^{\circ} 41' 30'' W.$

The boundary shall then cross the Lake by the shortest line, and from the point where it touches the southern shore it shall follow the local water-parting southwards, which conducts it to the summit of the high mountain mass indicated by Cerro Botella Oeste (1,890 metres), and from that peak shall descend to the Rio Pico by the shortest local water-parting.

There was appended to the Report a footnote stating that "All co-ordinate values expressed in terms of latitude and longitude are approximate only, and refer to the Maps attached to this Report. Altitudes quoted in the text are in metres. Where the boundary follows a river the 'thalweg' determines the line."

The maps referred to in Article V of the 1902 Award, and in the above-mentioned footnote, will be discussed in Part III, below.

B. THE GEOGRAPHY OF THE AREA

Something must now be said of the geography of the area in dispute in the light of present knowledge.

The area which lies between latitudes 43° and 44° S. is in striking contrast to the northern parts of the region of the great Cordillera of the Andes. It belongs to a transitional zone, cut through by gaps running east and west,

not north and south as in the north. The disputed sector lies between two such gaps or fractures of the Andean chain; in the north, that of the Palena River valley, in the south, the gap created by the broad expanse of Lake General Paz.

The landscape, composed of numerous and mostly north-south mountain ranges and river valleys (subject to a relatively heavy precipitation) is in its final form very largely the result of glacial action. This can be seen in the abundant evidence of rock erosion and frost weathering, in the cross-sections of gouged-out river valleys, and in the wealth of glacial deposits in the area.

The mountains — considered to be basically porphyry of Jurassic formation — rise to heights of over 2,000 metres. The base level of the rivers and of the forested and fertile river valleys is by contrast remarkably low.

In the general area, there are three principal chains of mountains; to the west of the disputed sector, to the east of it, and central to it. The Western Chain, the highest, lies between longitudes 72° and 73° W. and forms a permanently snow-covered protective barrier between the disputed sector (50 kilometres or so to the east) and the west coast of Chile and the Pacific Ocean, some hundred kilometres to the west. This chain continues the main Cordillera of the Andes.

The Eastern Chain fringes the disputed sector and divides its precipitous, enclosed, mountain landscape from the flat, open lands of the Patagonian Plateau through which the Argentine River Carrenleufú (or Corcovado) runs. It thus marks a very notable geographical division. (In its lower reaches the Carrenleufú flows through Chilean territory and is known as the Palena). At its northern end, the Eastern Chain — known to Chile since 1955 as the Cordón de las Virgenes — is prominently marked by Cerro Herrero and from that mountain it runs south to Cerro Cóndor. The Chain is then broken by the valley of the River Engaño and the Lagunas (lakes) of the Engaño. South of these lakes is Cerro Llano, a mountain overlooking the waters of Lake General Paz.

The central mountain complex between these eastern and western chains is divided into a northern and a southern group by the valley of the river known to Argentina as the Engaño which at this point bends sharply from north to south-west. Chile calls this reach of the river the Salto o Tigre.

According to Argentina, the Engaño is that river which, rising in the Engaño lakes, flows north-west, then north, then south-west, as described, to join a south-north tributary of the Palena which Argentina calls the Salto o Tigre. Chile applies this name to the lower reaches of this Salto o Tigre adjoining the Palena. She also calls the lower reaches of the Engaño the Salto o Tigre considering these two rivers to be one continuous water-course. The upper reaches of what Argentina calls the Salto o Tigre are regarded by Chile as a separate tributary rising mainly in the south-west of this central mountain zone and flowing northwards into the Salto o Tigre. Chile calls the whole of this tributary the Azul.

The mountains to the north of the south-west bend of the Engaño/Salto o Tigre are Cerro Díaz and other peaks between 1,500 and 1,720 metres high. To the south of the bend there is an important group of mountains, the so-called Cerro de la Virgen complex. This includes Cerro Mera (1,885 metres) and south-east of it the Cerro de la Virgen itself (1,911 metres). This is the mountain called Cerro Virgen in the 1902 Report and “the peak called Virgen” in the 1902 Award. It features prominently in the present dispute and some contributory streams of the Salto/Azul rise on its western slopes.

North of these two great peaks are some small mountain lakes, "Las Lagunitas", the product of ice erosion. To the south the mountains, with a well-defined surface water-parting, extend almost without interruption to the northern shore of Lake General Paz and the vicinity of Boundary Post 17.

The mountains of this central zone, still densely forested in their middle, and in places on their lower slopes, enclose several river valleys. In the western half of the zone there is the valley through which the rivers Salto o Tigre and the lower Engaño run. In the eastern half there is the long valley containing the upper reaches of the Engaño which joins the Valle Hondo. Below this junction a valley runs northwards past the southwest bend in the river until it is blocked by a flat-topped terrace of glacial deposits at Portezuelo de las Raíces. North of this terrace, which breaks the morphological continuity but not the geographical unity of the valley, the course of the valley is resumed as far as Boundary Post 16. The valley immediately to the north of the terrace contains one or more watercourses whose identity is in dispute, joining the River Encuentro at a confluence, henceforth called in this Report "the Confluence". This long south-north valley belongs wholly or in part to the territory often referred to as "California", probably because of the activities of gold-miners searching for alluvial gold in the valley in the late nineteenth century.

A crucial issue in the present arbitration is the proper identity of the various watercourses which form part of the Encuentro River system and meet at the Confluence. These fall into two main groups. One group, to which reference has already been made, is in the northern section of the south-north California Valley north of Portezuelo de las Raíces. According to Chile, this group comprises (a) a southern (or western) tributary of the Encuentro, the Arroyo (stream) López; (b) a southern tributary of the López, the Arroyo Mallines (marshes); and (c) several very minor tributaries. According to Argentina, the López and the Mallines together form with the Encuentro one continuous watercourse. This group, or watercourse, will be called henceforth the "Southern Channel".

The second group of watercourses, consisting of a principal stream and some unimportant tributaries, rises on the mountain slopes of the Eastern Chain, east of the California Valley. The principal stream rises high up on the western flanks of a snow-capped mountain which Chile calls the Pico Virgen of Pico de la Virgen (*circa* 1950 metres). It descends steeply north and west through a densely forested valley, flowing over the lower part of its course between vertical rock walls. This stream joining the Encuentro from the east will be termed the "Eastern Channel". Argentina calls it the Falso Engaño. Chile calls it the River Encuentro, maintaining that this river, and not the Southern Channel, forms the upper reaches of the Encuentro.

The question which of these two watercourses, or combination of watercourses, the Southern Channel or the Eastern Channel, is the Encuentro is the principal geographical issue confronting the Court.

Before leaving the physical geography of the area, some reference must be made to the geomorphological history of the Engaño/Salto o Tigre and Encuentro river systems since this plays some part in the rival contentions of the Parties. In the Court's opinion, based on the observations of its Field Mission, Argentina may well be justified in arguing that in the first pre-glacial stage of development there was a simple river and valley pattern consisting of two main valleys running south and north. One was the valley containing the Rivers Azul and Salto. The other, according to this thesis,

was the south-north valley containing an ancestor of the Engaño and a river continuous with it flowing through that northern part of the California Valley which to-day contains the lower reaches of the Encuentro. Argentina calls this ancient watercourse flowing from the Valle Hondo in the south to the River Palena in the north the "pre-Glacial Encuentro" and argues that it had a right-bank tributary, ancestor of the Eastern Channel.

The second stage of development began when moving ice filled these south-north valleys. Diffluent ice then breached the water-parting between the Salto and the Engaño. A similar breach was made between the upper and middle Engaño. As the ice melted, leaving various sedimentary deposits, and the rivers re-established themselves, this breaching resulted in the permanent diversion westwards of the Engaño (which assumed its present drainage pattern) and the division of the Engaño and Encuentro systems: a division reinforced by the build-up of glacial deposits surviving in the terrace at Portezuelo de las Raíces. To what extent any remnant "beheaded" stream, a relic as it were of Argentina's pre-Glacial Encuentro, survived north of this terrace in the form of the Southern Channel, is an issue in the geographical argument.

The Court will now turn to the social and economic geography of the area. These broad green valleys of the central mountain zone are no longer the wild untrodden solitudes that they were at the time of the 1902 Award, wild though the surroundings undoubtedly are. Protected largely from the Pacific storms, these valleys on the eastern flanks of the Andes escape the perpetual and torrential rainfall which afflicts the western coastlands of Chile. They have therefore become an attractive area for migration and settlement, particularly Chilean settlement. The dense forest which once covered the valley floors — mainly deciduous beech in this region (*Nothofagus Antarctica* or *pumilio*) — has been burnt to provide pasture for cattle, sheep and horses. These gigantic burnt, dead trees, mostly lie where they fell and they are strewn all over the valley floors, making only movement by horse possible. But there are many still standing, grey and stark on the green slopes of the cloud-wreathed mountains. They lend a melancholy air to the countryside.

Cattle and sheep form the basis of the settlers' economy, trade being in cattle on the hoof, fleeces and hides. A primitive agriculture — a little wheat, potatoes, vegetables — is practised but only for home consumption. The principal grazing is in the northern valleys and these are the main area for settlement. In summer, cattle and sheep, which are allowed to roam freely, are moved south, to the "veranadas", grazing grounds in the valley or in the midst of mountain forest in the vicinity of the upper reaches of the Engaño and the Valle Hondo.

The disputed sector is essentially "Cowboy" country where riders wear the black sombrero and the flowing poncho. The settlers live — mostly on or not much above subsistence level — in timber homesteads, with porch and verandah, or in log cabins, each with a corral for horses.

The nearest urban centre to the disputed sector is the Chilean market town of Palena, only 6 kilometres to the south-west of Boundary Post 16. In Argentina, the nearest comparable town is Corcovado, 22 kilometres to the east of the Post. From the time of the 1902 Award until about 1928 the sector's trading and other contacts appear to have been directed mainly towards Argentina, the journey eastwards along the Palena/Carrenleufú valley to the settlements on the Patagonian Plateau being a great deal easier than the passage westwards through the precipitous, heavily forested, rainswept country of southern Chile.

With the development of Palena from about 1928 onwards the situation appears to have changed. A Chilean Government Registry Office was opened in Palena in 1952. In 1950 the airfield was opened, and by 1956 air services, fairly regular by 1960, linked Palena with the rest of Chile. A road meanwhile was cut through towards the west coast. Such services, the building of a well-equipped hospital (considerably larger than that of the more distant Argentine town of Corcovado), social amenities such as the annual Rodeo for the cowboys of the neighbourhood, all these have inevitably and increasingly influenced the character and size of the population in the disputed area only a few kilometres away.

Communications are of vital importance to the scattered community in this remote frontier region. Branching from the motor road which links Palena with Corcovado by the way of the Argentine settlement of Carrenleufú, a motorable track built by Chile runs south along the west bank of the Encuentro and crosses the river (whose identity is here in dispute) just above the Confluence. This stony track, crossing the river by a bridge, links Palena with northern California.

A motor road has also been constructed, more recently and replacing an earlier track, by Argentina, and work on it was still in progress when the Court's Field Mission visited the area in 1965-66. This road too branches from the Palena-Carrenleufú-Corcovado road. It runs south along the east bank of the Encuentro as far as the Confluence, but stops short on the northern bank of the Eastern Channel.

Both these towns, Palena in Chile and Corcovado in Argentina, linked by these roads and tracks with the disputed sector, have their communications with the outer world. From Corcovado, roads running north and east join Argentina's national network. The northern road runs for about 70 kilometres to Esquel, a substantial town with a well-equipped airport from which there are regular air services to Buenos Aires.

Palena is less well-served. Communications with the rest of Chile for both passengers and freight — export of hides and wool for example — have to be mainly by air, by Chilean National Airlines which endeavours to maintain a regular air service despite difficult weather and landing conditions. The motor road from Palena to the west coast, which has to cross country frequently water-logged because of its abnormally heavy annual rainfall, is still incomplete, and vehicles have to be shipped for 35 kilometres across the often stormy Lake Yelcho before they can reach Chaiten.

C. VISIT OF THE FIELD MISSION IN 1965-66

Preliminary discussions with the Parties led the Court to decide that, before making its Report, it would be essential to make an aerial survey of the disputed area and also to reconnoitre it on the ground as provided for in Articles V and VI of the Compromiso. The Court was advised that, because of climatic conditions, it would only be possible to conduct these operations in the period between December and March. Early preparations were therefore put in hand. An examination of the Memorials and accompanying maps submitted by the Parties on 1 December 1965 confirmed the need for both aerial survey and ground reconnaissance, arrangements for which were by that time well in hand. Those arrangements included the award by Her Majesty's Government, as the result of tenders submitted, of a contract for aerial survey and mapping to Fairey Surveys Limited.

Having first ascertained the views of the Parties, the Court ordered that a certain area should be photographed from the air (see Part I, above). The Court deferred a decision on the area to be mapped until after the return of the Field Mission.

In its Order of 10 November 1965 the Court established the Field Mission, consisting of:

Leader	Mr. L. P. Kirwan
Director of Aerial Photography . .	Brigadier K. M. Papworth
Chief Technical Officer	Major W. D. Rushworth R.E.
Technical Assistant.	S/Sjt. M. G. Browning R.E.
Interpreter	Mr. S. W. Chapman

The Parties meanwhile had nominated the following liaison officers, geographical experts and air officers for attachment to the Field Mission and to the Air Survey Unit from Fairey Surveys Limited.

The Argentine Republic

Chief Liaison Officer	Señor S. N. Martínez
Deputy Liaison Officer	Señor M. A. Espeche Gil
Geographical Experts.	Professor F. A. Daus
	Professor E. H. Brown
Chief Air Officer.	Commodore A. Y. Corbat
Liaison Officer with Fairey Surveys Ltd.	Vice-Commodore A. Pent
Cartographical Expert	Lt.-Col. E. A. Marini

The Republic of Chile

Chief Liaison Officer	Señor G. Carrasco
Deputy Liaison Officer	Professor H. Brünner
Geographical Experts.	Lt.-Col. A. Ayala
	Mr. Eric Shipton
Chief Air Officer.	Wing Commander V. Rodríguez
Liaison Officer with Fairey Surveys Ltd.	Captain O. Verdugo
Cartographical Expert	Captain J. Mutis

At a meeting with the Parties at the Royal Geographical Society on 3 December 1965 it was agreed that Esquel in Argentina, because of the facilities available there, should be the base for the Air Survey Unit while Palena in Chile, closer to the sector in dispute, should be the base for the Field Mission's ground and air reconnaissance.

The first phase of the Field Mission's work began on 10 December and ended early in January with the clearance and marking by Major Rushworth and Staff-Serjeant Browning of triangulation stations. Transport was mainly by helicopters provided by the Parties and frequent landings were made (on mountain summits, for example) in difficult conditions. With assistance from both Parties 10 stations had been marked before Christmas day. Because of heavy and unusually late falls of snow early in December, however, the remaining four, and highest, stations could not be completed until 2 January. Major Rushworth had valuable discussions with, and received every assistance from, the Survey Departments in Buenos Aires and Santiago on his way to the frontier zone.

Before the second phase of the Mission, involving the departure for the frontier of the two members of the Court, was launched, the Court held preliminary oral hearings on 29, 30 and 31 December, at 24 Kingsway, the Public Trustee Office. The purpose of these hearings was to enable the Parties to inform the Field Mission on matters which they considered to be of particular geographical importance, and to provide the Mission with geographical information.

It was agreed at these hearings that no evidence should be taken by the Mission in the field, and that any interrogation of the local inhabitants which might be necessary to enable the Mission to fulfil its reconnaissance task should be conducted through the medium of the liaison officers attached from each side. In order to complete the geographical picture Argentina agreed to supplement her Memorial with a Memorandum on Land Use, Settlement, and Circulation of Local Trade. Copies of this were delivered to the Leader of the Field Mission on 14 January before his departure for the frontier.

The second phase of the Field Mission began with the arrival of Brigadier K. M. Papworth, Director of Aerial Survey, and the installation of the Air Unit at Esquel. Brigadier Papworth, accompanied by Mr. Chapman (Interpreter), arrived in Buenos Aires on 7 January and on 10 January moved to Esquel to finalise arrangements for the reception there of the Air Unit. They visited Palena and made some preliminary flights by helicopter and light aircraft over the disputed sector. Each of the Parties provided two helicopters and two aircraft, with crews, for the use of the Field Mission, and in the course of their work the Mission soon learnt to admire the skill of the pilots in the often difficult conditions which flying in the area, and frequent helicopter landings, presented.

The Air Survey Unit under Captain G. W. Milsom arrived on 13 January in Esquel, where it met Mr. Walter Smith, joint managing director of Fairey Surveys Limited, who had already arrived there. Bad weather, however, and much cloud prevented any photography until 24 January. On that day, partly clear, 1,700 square kilometres were photographed. The following day was completely clear, the only completely clear day in this cloudy country which the Air Survey Unit and Field Mission experienced, and 3,300 square kilometres were photographed. The next day was partly clear and tie strips were completed. The Air Survey Unit arrived back in Buenos Aires on 3 February and left for Jamaica on 16 February.

The third phase of the Field Mission's work covered the air and ground reconnaissance of the disputed area and began with the arrival of the leader of the Field Mission at Palena on 22 January, after official visits, accompanied by Brigadier Papworth, to Buenos Aires and Santiago. Palena, a small Chilean market town with several hundred inhabitants, consists of older timber houses with pitched roofs composed mostly of U-shaped wooden tiles, and with a porch and verandah in "frontier style", and rows of recent "Army" huts. The members of the Field Mission were housed at Las Lenguas, a comfortable Government Rest House facing, across a field which had the function of a village green, the headquarters of the Chilean Carabineros. This field was the base for the Field Mission's helicopters, the light aircraft being on the airfield half a mile from the town. The Argentine and Chilean personnel attached to the Field Mission were housed in wooden huts and one of these huts contained the Field Mission's Office.

The Field Mission's reconnaissance began on 24 January and continued until 2 February, with intervals for visits to Esquel, Carrenleufú and Cor-

covado. Light aircraft were used for high altitude flights and for communications with the Air Survey Unit at Esquel. But most of the reconnaissance was done by helicopter, as long as the often rapidly changing weather conditions permitted, with frequent landings on hill-tops and among the litter of dead trees in the valleys. Given the weather, helicopters proved ideal for this kind of work. On 27 January the Field Mission rode by horse from the Confluence south through the California Valley as far as the junction of the rivers called by Chile the Arroyo Mallines and the Arroyo López. This gave the Field Mission a close view of the most important area of settlement including a Chilean school. Then and later visits were paid to Chilean police posts in the valley and to the Argentine Gendarmerie post of Valle Honda.

During these flights (some several times repeated) and landings and ground reconnaissance, the Field Mission was able to examine the disputed area and its immediate surroundings in great detail.

On 26 January visits were made to the Air Survey Unit and to the Headquarters of the Argentine Gendarmería Nacional at Esquel, and on 31 January the Mission drove in trucks to the Argentine settlement and Gendarmerie post at Carrenleufú and on to Corcovado, the Argentine town nearest to the disputed sector of the boundary. On 1 February, the last day of the Field Mission's field work, it travelled by truck over the roads built by Argentina and by Chile along respectively the east and west banks of the River Encuentro south of Boundary Post 16.

The Court takes this opportunity of expressing its gratitude to the Governments of Argentina and Chile for all the help and for all the generous hospitality accorded to the Field Mission by both Parties during its stay in the sector. No Field Mission could have worked under happier conditions. Special mention must be made of the efficiency and skill of the pilots and air crews provided by both countries for they played a quite essential part in the success of the Field Mission's operations.

Members of the Field Mission stayed for several days in Buenos Aires and Santiago on their way to and from the frontier and were entertained by the Minister for Foreign Affairs and Worship in Argentina, and by the Minister for Foreign Affairs in Chile, and indeed by many others. The Field Mission also had the privilege of audiences with the President of the Argentine Republic and the President of the Republic of Chile. It was then able to express the Court's gratitude for the way in which the Field Mission had been received and so generously assisted in both countries.

PART III

A. EXPLORATION AND MAPPING OF THE DISPUTED AREA BEFORE THE AWARD OF 1902

(i) *Before 1898*

Little was known of the disputed area at the time when Argentina and Chile presented their cases to the Tribunal in 1898. It had been established that the River Carrenleufú flowed eastwards out of Lake General Paz and then turned northwards and westwards in a great semi-circle before going towards the Pacific Ocean, becoming known as the River Palena in its lower reaches. In 1886 the Chilean explorer Serrano, while travelling up the Palena, had seen the mouth of a tributary coming in from the south. This he named the Salto on an unpublished map later used by Steffen. About 1893 the Argentine explorer Ezcurra discovered that some small

lakes north of the east end of Lake General Paz drained north-westwards to the Carrenleufú.

In December 1893 a Chilean expedition under Steffen travelled up the Palena from the Pacific. On 6 February 1894 two parties of the expedition which had split up met near the mouth of a tributary flowing into the Palena from the south. This tributary joins the Palena about 20 kilometres upstream of the Salto, and in celebration of the meeting Steffen called it "Río del Encuentro". A map produced by Steffen and Fischer (CH.1) and another map produced by Fischer alone (CH.2) both show the Salto and the Encuentro joining the Palena. The upper reaches of these tributaries, however, are not shown. This was because none of these expeditions penetrated the mountains and valleys lying within the semi-circle formed by the bend of the Carrenleufú. Steffen noted that the gorge of the Encuentro came in from the east and that, although the river was of some size, it had only a small flow. Fischer appears to have travelled along the south bank of the Carrenleufú eastwards from the Encuentro. In that case it is probable that he saw the Encuentro valley running southwards but did not see any of its tributary streams.

A number of gold diggers, some of whom held licences from the Argentine authorities, had worked in the area but they have left few traces of their work and no details of their travels. Steffen, however, alleges that they were responsible for firing and destroying much of the forest cover in the area.

The knowledge of the disputed area in 1898 was therefore largely confined to Lake General Paz and to the course of the Carrenleufú (Palena). Little was known of what lay within the bend of the Carrenleufú other than the mouths of the Encuentro and Salto.

(ii) 1898-1902

After presenting their cases to the Tribunal in 1898 both Argentina and Chile carried out trigonometrical and topographical surveys of the area then in dispute, which it must be recalled was a far larger area than that now in dispute. These surveys, however, included parts of the area now in dispute. Argentina was particularly active, with surveys by Lange in 1898, Waag in 1899 and by Bach and Lange in 1901. From these surveys Argentina prepared maps which it submitted to the Tribunal in October/November 1902 as part of its Short Reply. The area now in dispute was shown on Map XVIII, Sheets 2 and 3 (A4 and A5; CH.12A and CH.12 B). Both sheets were at 1:200,000 scale. The northern sheet, Sheet 2, extended southwards to the Palena, where the mapping ended with the exception of a small area south of the river. Sheet 3, which extended northwards as far as the Palena, depicted with reasonable accuracy Lake General Paz and the surrounding country. It also showed a "Río Engaño" flowing north-westwards from the "Lagunas del Engaño" (just north of the eastern end of Lake General Paz). This river, after 25 kilometres, was shown turning south-westwards later to join a "Río Encuentro" coming from the south. The report of Lange of August 1901 — and it was on the work of Lange that much of Sheet 3 was based — had stated: "The River Engaño runs to the north-west and forms one of the main tributaries of the River Encuentro." On Sheet 3 the "Río Encuentro" was shown as having a number of tributary streams, one of which had a source on the western slopes of Cerro de la Virgen. This "Río Encuentro" was shown as flowing northwards to join the Palena, but the depiction was by means of a firm blue line only for a short distance below the confluence with the Río Engaño and after that by means of a pecked line. (A pecked line is the normal

indication for a feature which is known to exist but whose position has not been accurately located.) Apart from its lower reach, the course of the river called "Río Encuentro" on Sheet 3 is a fairly accurate representation of the actual River Salto. However, Sheet 3 shows another river entering the River Palena considerably to the west of the "Río Encuentro", and this it calls "R. de Salto".

Sheet 3 therefore has two mistakes that are relevant to this controversy. First, the main stream into which the Engaño flows has been named "Río Encuentro" whereas it is, in fact, the River Salto. In consequence this "Encuentro" is a different stream from the river first called "Encuentro" by Steffen in 1894.

Secondly, the so-called "Encuentro" on Sheet 3 is indicated, albeit by a pecked line, as maintaining its northward course to its junction with the Palena, at about $71^{\circ} 47'$ longitude west, whereas the real River Salto turns abruptly westward before joining the Palena.

In 1898 Lange had already surveyed the lower reaches of Steffen's Encuentro and showed its junction with the Palena at about $71^{\circ} 47'$ longitude west. This survey was made before any trigonometrical framework was available, whereas his survey in 1901 appears to have been based on a proper framework, with new, and more accurate, longitudes. Nevertheless he may have remembered his earlier work and accordingly placed the junction of his 1901 "Encuentro" with the Palena at this same longitude.

About where Steffen's Encuentro should be, Sheet 2 does indicate two streams joining the Palena from the south but names neither. The western stream possibly represents Steffen's Encuentro, in which case the eastern one represents the Arroyo Cajón.

In 1902, before the Arbitration Tribunal reported, Colonel Sir Thomas Holdich, one of the Members of the Tribunal, led a Technical Commission in an examination of the entire boundary in dispute. This inspection was, of necessity, very hurried and was only made possible by the existence of maps which Holdich constantly checked in the field. He reports that the work of the Argentine topographers was "good, honest work throughout". Later he writes, "I feel confident that we may take the Argentine maps as they stand and depend on them (so far as they are officially complete) as the basis of any decision that the Tribunal may advance." Holdich also reports that "the Chilean surveyors had practically no topography to produce". (Chilean Memorial, Annex No. 18.) Consequently the Arbitration Tribunal in 1902 had no alternative but to rely on the Argentine maps.

In his examination Colonel Holdich journeyed along the eastern side of the Carrenleufú bend, but was unable for lack of time, and because of the difficult terrain, to reconnoitre any part of the country within the bend.

B. THE 1902 AWARD MAP

As already stated, Article V of the Award referred to "the maps furnished by the experts of the Republics of Argentina and Chile, upon which the boundary which We have decided upon has been delineated by the members of Our Tribunal, and approved by Us". One of these maps shows the boundary from Pérez Rosales to Lake Buenos Aires. The area now in dispute lies in the middle of this map, which is referred to in this Report as the Award Map. Argentina filed the whole of this map in these proceedings as A.1; Chile filed a relevant extract of it as CH. 13.

The Award Map, at 1:200,000 scale, is made up, amongst others, from Argentine Map XVIII, Sheets 2 and 3, which have already been described. It reproduces the mistakes noted above and also shows the two unnamed rivers. It shows the boundary decided upon in the Award with a solid red line where the country had been adequately surveyed and with a pecked red line across unsurveyed areas. Not surprisingly the boundary line thus shown on the Award Map corresponds exactly with the description of that line given in the Report of the Tribunal. There is also no incompatibility between the boundary line shown on the Award Map and the much shorter definition of that line given in the Award itself, save only that the Award describes as "the peak called Virgen" the feature shown on the map as "C.d.l. Virgen" and described in the Report as "Cerro Virgen".

C. THE DEMARCATION OF 1903

On 28 May 1902 Argentina and Chile entered into a Protocol in which they agreed, in advance of the Award to be given by King Edward VII, "to ask the Arbitrator to appoint a Commission to fix on the ground the boundary" to be determined by his Award. The British Government duly appointed a Commission headed by Colonel Sir Thomas Holdich, one of the members of the Tribunal whose Report was referred to in Article V of the Award. In a letter of 29 December 1902, written in Buenos Aires to His Excellency Señor Dr. Luis Drago, Argentine Minister for Foreign Affairs, Colonel Holdich referred to certain arrangements, in anticipation of the demarcation, agreed upon between himself and the Argentine and Chilean experts in London. These were respectively Dr. F. P. Moreno and Señor A. Bertrand. These arrangements included the following provisions:

3. It was agreed that wherever the boundary is defined by strong, well-marked, and unmistakable topographical features no demarcation is necessary. Pillars and boundary marks need only be erected at certain obligatory points in the line indicated by the crossings of rivers and lakes, the summits of passes, and open stretches of country where the topographical features which support the boundary are weak.

4. . . .

5. It was also agreed that each British Officer should be accompanied by one or more representatives from each Republic, who would be responsible for the surveying necessary in order to determine the position of the pillar on the boundary map and for such engineering assistance as may be necessary in transporting and erecting the pillars.

6. The British Officer in charge will be in absolute command of the party, and the final referee in cases of dispute. He is also to be responsible for the correctness of the final records of the boundary. . . .

Four British Officers were allocated to the Demarcation Commission, namely, Captain B. Dickson, Royal Artillery, and Captain W. M. Thompson, Captain C. L. Robertson, and Captain H. L. Crosthwait, all of the Royal Engineers. In general directions to his officers Colonel Holdich said *inter alia*:

The Duty of the British Officers is to superintend the alignment of the pillars, or boundary marks, in those parts of the boundary indicated by the Tribunal, and to decide in cases of uncertainty where such boundary marks are to be placed. Only in cases of very grave discrepancy between the mapping and the terms of the

Award will it be necessary to appeal to the decision of the Commissioner. Should any such appeal be necessary it must not be permitted to delay the process of the demarcation. . . . Time is an all important consideration.

Boundary Post 17 was erected on the northern shore of Lake General Paz on 9 March 1903 by Captain Dickson. Its position has never given rise to any trouble. With Boundary Post 16, however, the story has been very different. On 2 March this Post was erected by Captain Dickson opposite the river now known as the Cajón (about 5 kilometres east of the Encuentro) but of course on that day thought by Dickson to be the Encuentro. In his report Captain Dickson states that "The reputed Río Encuentro proved to be a small stream." He goes on to say that the Argentine and Chilean representatives with him agreed that this was the right place and "no one suspected that it was not". Accordingly, he continues, "I placed the pillar on the north bank of the Palena and opposite to the junction of this supposed Río Encuentro."

On 9 March Captain Dickson, who by this time had received other maps, concluded that he had probably erected Boundary Post 16 in the wrong place, and so he sent one of the Argentine representatives, Señor Soot, to look for another river further west along the Palena. Señor Soot was to find Señor Barrios, the Chilean representative, then in the Corcovado Valley, and to take him with him. On 14 March Captain Dickson himself arrived on the scene, and that evening he and his party reached the river now known as the Encuentro. Both Dickson and Señor Barrios were convinced that this was the river opposite which the post was to be erected. The senior Argentine representative, Señor Frey, had doubts and thought that the Encuentro, opposite which the post should be erected, lay further to the west. Dickson sent Frey to look for this other river, but on 15 March Frey returned and said that he had been unable to reach the ridge of peaks at the eastern edge of which he thought the other river lay. Frey also said that he now believed that the river where they were was the Encuentro after all, and so on 16 March Dickson crossed to the north bank of the Palena and erected the pillar.

It is now known that, if Frey had been able to go a little further west, he would have hit upon the Salto. Had he persuaded Dickson to place the pillar opposite that river, Boundary Post 16 would have been erected opposite a river a western branch of which rises on Cerro de la Virgen, and many of the subsequent difficulties might not have arisen. Nevertheless, if Captain Dickson had erected the pillar opposite the Salto, he would not have placed it opposite the river named "Encuentro" after the meeting there of Steffen's two parties in 1894, and difficulties of another sort would doubtless have ensued.

Argentina, whilst admitting that it no longer lies in her power to press for the removal of Boundary Post 16, has constantly argued, even before this Court, that the Post was erected opposite the wrong river and that it should have been erected opposite the Salto. Chile has equally constantly maintained that Boundary Post 16 was erected in the right place. In the Court's view, this controversy is now a barren one, especially in the light of the Compromiso which does not empower the Court to inquire into the question whether Boundary Post 16 was rightly or wrongly placed, let alone to order the removal of that Post to any other place. The Court is of the opinion that what really matters is the effect of Captain Dickson's decision to place Boundary Post 16 where he did place it.

D. IDENTIFICATION OF GEOGRAPHICAL FEATURES INVOLVED IN THE 1902 AWARD AND THE 1903 DEMARCATION

Leaving aside for the time being all legal considerations and without prejudging any such considerations, it has been possible for the Court to identify on the ground the following features mentioned in the 1902 Award which are relevant to the present controversy:

- (i) There is no difficulty about identifying the feature referred to in the Award as "the peak called Virgen", in the Report of the Tribunal as "Cerro Virgen" and in the Award Map as "C. d. l. Virgen". This is an outstanding feature and is the highest peak on a north-south line between the River Palena and Lake General Paz. It is important to stress this clear identification of Cerro de la Virgen as Chile has at times suggested that by "the peak called Virgen" in the Award was meant a mountain lying well to the east of Cerro de la Virgen. Since 1955 this other mountain has been called by Chile "Pico Virgen" or "Pico de la Virgen". However, at the preliminary oral hearings in December 1965 the representatives of Chile made it plain that, while Chile still contended that the source of the Encuentro was at "Pico Virgen" and that the boundary should pass through that peak, it was not suggested that "Pico Virgen" actually was "the peak called Virgen" of the Award.
- (ii) There is no difficulty about identifying, and following — as the Report of the Tribunal and the Award Map require — southwards from Cerro Virgen "the local water-parting southwards to the northern shore of Lago General Paz at a point where the Lake narrows, in longitude 71° 41' 30" W.". This is the point where Boundary Post 17 was erected.
- (iii) Boundary Post 16 having been placed where it was placed in 1903, the river opposite that Post must be regarded as the Encuentro. There is no difficulty about identifying and following that river as far as the Confluence.
- (iv) There is, however, considerable difficulty in identifying the course of the Encuentro above the Confluence. The cause of this difficulty is that in 1902 and 1903 there was a confusion between two wholly different river systems. This confusion was not realised at the time and in the 1902 Report, and on the 1902 Award Map, the Encuentro was indicated as having a source on the slopes of Cerro de la Virgen which it does not in fact have. The reference in the 1902 Report to a "western branch" of the Encuentro adds to this confusion. The 1902 Award itself, however, makes no reference either to a "western branch" of the Encuentro or to the "source" of that river.
- (v) The difficulty just referred to has absolutely no effect on the boundary between Cerro de la Virgen and Boundary Post 17, where the 1902 Award, Report and Map can all be applied to the ground.

PART IV

In this Part of its Report the Court will recount the development of the problem now referred to it as it took place between the demarcation in March 1903 and the Chilean Note to the Foreign Office on 15 September 1964 which led directly to these proceedings. While the main purpose of this Part of the Report is to provide a general summary of the facts of the

controversy as it developed during this period, it will naturally concentrate on those facts which are of particular significance so far as concerns the legal solution of the points in dispute.

As a result of explorations by Sundt in 1903 and Alvarez in 1907 Argentina became aware both that the river opposite which Boundary Post 16 was placed did not rise on Cerro de la Virgen and also that the river, a tributary of which did rise on Cerro de la Virgen, entered the River Palena at a point some distance downstream from the point where Boundary Post 16 had been erected. Sundt later told the story of his expedition in a book from which it is possible to learn a great deal about the hardships confronting travellers in these regions in early times. One conclusion to be drawn from these accounts is that, while undoubtedly mistakes were made, it scarcely behoves this Court, with all the advantages of aerial survey at its disposal, to attribute any personal blame to these hardy pioneers. Apart from physical hardships, one of the greatest difficulties with which explorers in the region were faced was that of visibility. This problem is explained in the report of Lange (see Part III, A, above) as follows:

The work of the topographer is made difficult by the bad weather, which is the rule in these regions, and by the dense vegetation of the lower parts; from the path cut through in the dense forest nothing can be seen, and on the elevated summits the clouds and fog that almost always cover the high mountains impede the view and make orientation difficult, few occasions being made available for the use of the surveying instruments. (Extract from the Report of G. Lange, August 1901: Annex No. 9 to the Argentine Memorial.)

Having become aware of the problem in regard to the situation of Boundary Post 16, the Argentine Government decided to take the matter up with Chile. Accordingly, on 9 December 1913, the Legation of the Argentine Republic in Santiago deposited with the Chilean Government a Memorandum in which it stated that Boundary Post 16 "is not at the place indicated in the Arbitral Award, that is to say, opposite the mouth of the River Encuentro, but more to the East of this point, opposite the mouth of another different river which has its source in the vicinity of the Peak Herrero, wherefore it deflects the frontier line out of its true direction, both to the North and to the South of the River Carrenleufú or Corcovado and it becomes impossible for the boundary line to pass through the Virgin Peak which has been expressly indicated as a boundary point in the Award, or for it to continue thence to the South through the other points indicated in the said Award".

The Argentine Legation went on to suggest that two engineers, one nominated by each Government, should move Boundary Post 16 to the correct position.

On 26 December 1913 the Chilean Government maintained in a Note to the Argentine Government that Boundary Post 16 was correctly located.

On 26 January 1914 the Argentine Legation renewed its request. To this the Chilean Government replied on 17 June 1914 stating that, while it was of the view that Boundary Post 16 was correctly located, it would have no objection to sending an engineer who, in company with an Argentine engineer, would check the position of the Post. However, the Chilean Government preferred that the engineers should not prepare a joint minute of their work, but that they should report separately on the results thereof to their respective Governments. If it should be found that there was a factual error in the location of the Post, nothing would be further from the mind of

the Chilean Government than to take advantage of the situation for its own benefit. At the same time the Chilean Government was not prepared to reopen discussion on the implementation of the Award.

On 9 December 1914 the Argentine Government repeated its request that an engineer should be appointed by Chile. On 6 October 1915 the Argentine Government, which had by this time appointed its own engineer, renewed its request yet again. Chile, however, took no action.

Both Parties attach considerable importance to this correspondence. Argentina emphasises its repeated reservations of its position, whereas Chile stresses the passage in the Argentine Memorandum of 9 December 1913 which asserts that Boundary Post 16 had not been located opposite the mouth of the River Encuentro but "more to the East of this point, opposite the mouth of another different river which has its source in the vicinity of the Peak Herrero". To this Argentina retorts that Chile never replied to the last two Argentine Notes; that there is nothing in the Chilean Notes to indicate that the Chilean Government then considered the proper course of the boundary to be along the course of the river which Chile now calls the upper course of the River Encuentro (and which Argentina calls the River Falso Engaño); and that in a map attached to the Chilean Note of 26 December 1913 the boundary was not shown as following the River Falso Engaño but was shown as going through Cerro de la Virgen. This was the "Llanquihue map" (A59) to be referred to again in Part V, below.

The Governments of the Argentine Republic and the Republic of Chile exchanged no further Notes about this sector of their common boundary until 1952, although in a letter dated 26 May 1947, from the Chilean Consul at Esquel (Argentina) to the Chilean Minister for Foreign Affairs, reference was made to a penetration of Chilean territory by the Argentine Gendarmerie in the River Encuentro area. On 29 August 1952 the Chilean Ambassador in Buenos Aires deposited with the Argentine Minister of Foreign Affairs and Worship a Note, in which he complained of the activities of the temporary head of the Carrenleufú Argentine Gendarmerie group "in the areas Río Encuentro and California, situated in Palena District 2, Yelcho Commune". The gendarme concerned was stated to have taken away from Chilean settlers documents issued to them by the Chilean authorities such as receipts for payment of land taxes and official residence permits and to have informed them that they belonged to the Argentine Republic. The Chilean Note, referring to an interview which the Ambassador had had with the Argentine Minister for Foreign Affairs and Worship eight days previously, went on to say that in that interview the Argentine Foreign Minister had given assurances that "the present 'status' was being maintained unaltered in that area as long as it was not touched by the demarcation of the Mixed Boundary Commission". On 21 August 1952, the same day as the interview just mentioned, the Argentine Ministry for Foreign Affairs and Worship issued a statement in which it referred to "newspaper reports, according to which the National Gendarmerie is alleged to have served notices of ejection on the populations of Río Encuentro and California in the territory of Chubut" (an Argentine province). In his Note of 29 August the Chilean Ambassador stated as follows: "it appears to me essential to place on record the fact that having pointed out to your Chancellery the error of such statement, I was informed that, in the opinion of the Argentine Technical Officials the River Encuentro is on the boundary and California is actually Chilean and that the reference to the territory of 'Chubut' in the said statement was a 'slip'".

Chile attaches considerable importance to these incidents claiming that on the critical date (which in Chile's view was 25 July 1952) when the

Argentine Gendarmerie first intervened in the River Encuentro and California areas and Argentina began, in face of the protests of the Chilean Government, to attempt to display state activity to the west of the boundary line contended for by Chile in these proceedings, "Chile already possessed a valid title to the areas in question". She also claims that "the status of California in 1952 was Chilean" by reason of Argentina's express recognition of that fact in August of that year in response to a protest made by the Chilean Government regarding the intervention of the Argentine Gendarmerie (Chilean Memorial, page 479). In her Counter-Memorial Chile provided evidence of an earlier alleged Argentine incursion which took place in 1947.

On 16 April 1941 the Governments of the Argentine Republic and the Republic of Chile had decided to establish the Argentina-Chile Mixed Boundary Commission. In view of its importance in the case it is necessary to explain the organisation and operation of this Commission at some length.

Article 1 of the Protocol referred to the tasks of the Commission as being "to replace the boundary posts which have disappeared or are in a bad condition, to erect new intermediate boundary posts where it considers it necessary to do so, in order to indicate the frontier line more clearly and accurately, and to determine the exact geographical co-ordinates of all the existing boundary posts and of those which it shall erect". Article 2 provided that the two Governments would "furnish their respective Commissions with the staff, equipment and means necessary for executing the works". Under Articles 3 and 5 the Mixed Commission was to agree upon a works plan and, simply for information, to communicate it to the respective Governments. It was also provided that, in the works plan, the Mixed Commission was, in those cases where it thought fit, to include as the first operation "a detailed survey for an official map corresponding to a strip of territory of sufficient width on both sides of the boundary". Articles 6 and 8, which are of considerable importance, provided as follows:

Article 6

Acts will be drawn up in two copies both being of the same tenor, attesting the location and other descriptive data of each of the boundary posts erected, which Acts will be signed by the Commissioners in charge of the demarcation and sent to the contracting Governments. The said Acts will have full effect and are to be considered binding and valid, and each of the countries will exercise thenceforth full dominion in perpetuity over the territories respectively belonging to them without further procedure.

The respective Governments undertake to withdraw, within a period not exceeding six months, from any territories which, pursuant to the provisions of the foregoing paragraph shall pass from the jurisdiction of one nation to that of the other, and they will notify their withdrawal for the purposes of the corresponding occupation.

Article 8

When in the course of placing boundary posts disagreement arises as to the location of the dividing line, the Commissioners will jointly carry out a survey for a plan on a large scale of the zone under discussion and will attach thereto a report by each of the parties. With these data the Foreign Ministries of the two countries shall make an appropriate decision. In the event of disagreement between the Ministries, the Governments will submit the same to arbitration by an expert of a third State, who will be appointed by mutual agreement within a period of one month of such disagreement being known.

The translations of these two Articles are taken from Annex No. 17 to the Argentine Memorial. Chile refers to "Acts" as "Minutes", but no significance attaches to this difference in terminology. As will be seen later, however, there is much dispute as to whether certain decisions recorded in Act (Minute) No. 55 of 1 November 1955 are or are not binding upon the Parties.

The Mixed Boundary Commission duly drew up a Works Plan, which was amended from time to time. The Works Plan provided in Article 1 that the Mixed Boundary Commission would consist of three technical delegates from each country appointed by the respective Governments; one of these was to act as chairman of his delegation. Article 16 of the Works Plan empowered the Commission to "draw up Regulations, supplementary to this Plan, which shall govern all its activities". Article 19 of the Works Plan provided that for the purposes of its work the Mixed Commission would divide the frontier into sixteen sections (each of two degrees). The disputed area comes within Section VII (44th to 42nd parallel South).

Article 20 of the Works Plan set out the official documents to be used by the Commission in its work. These included the Treaty of 23 July 1881; the Protocol of 1 May 1893; the Award of 20 November 1902 (including the Report of the Arbitration Tribunal and the Award Maps); and — after an amendment effected in 1951 — surveys carried out by the Mixed Boundary Commission itself.

In 1950-51 the Commission amended its previous practice. Instead of placing intermediate boundary posts and then preparing a map, it decided that in all cases the demarcation should be preceded by a survey map with the boundary line plotted on it. (Act No. 43 of 23 November 1950 and Act No. 45 of 11 October 1951.)

It is important to emphasise that the Mixed Boundary Commission was not established specifically in relation to the disputed sector between Boundary Posts 16 and 17. Indeed it did not direct its attention to Section VII (within which that sector lay) until 1943. On 23 September 1943 it decided to entrust to the Argentine Military Geographical Institute aerial photography "to the north as far as the Carrenleufú or Palena River". It was provided that "a Chilean Representative must be present during photographic operations". (Act No. 25.)

In its Act No. 39 of 31 October 1948 the Mixed Boundary Commission adopted its Informative Report for the years 1941-47. This Report states as follows:

The line crosses the lake (Lake General Paz) from South to North and continues along a local water-parting separating the waters flowing into the River Engaño, leaving them to the east, and finally reaching Cerro de la Virgen.

From this peak, which must be considered as a natural boundary post, the boundary should continue, according to the Award of His Majesty Edward VII and the Report of the Arbitration Tribunal, along the course of the River Encuentro from its source until it flows into the River Palena. Boundary Post (16) is erected on the north bank of the River Palena, opposite the mouth of the River Encuentro.

The topography of the zone north of the Cerro de la Virgen does not correspond to that shown on the cartographical documents dating from the time when the Arbitration Award was made.

There are serious defects in the Map used by the British Demarcators on which the dividing line was plotted, especially in the section covering the hydrographic basin of the River Encuentro in its upper and middle course. For this reason the

identification and materialisation on the ground of this sector of the boundary line has caused difficulties which the Mixed Commission is at present trying to resolve.

Between 1951 and 1954 an aerial survey of the disputed area was completed and topographical sheets were drawn up from the survey. It had been agreed that the mapping of the sector between Boundary Posts 16 and 17 should be the responsibility of the Argentine representatives on the Commission with a Chilean representative acting as observer. Act (Minute) No. 53 of 4 November 1954 records that the Argentine delegation handed to the Chilean delegation five lithographic copies of the following sheets:

VII-1 "Lago General Paz-Palena"

VII-2 "Cerro de la Virgen"

VII-3 "Río Encuentro"

Argentina has filed these sheets printed in three colours as A29, A30 and A31. Chile has filed them in monochrome as CH.23A, CH.23B and CH.23C.

These sheets were plotted from air photographs taken under arrangements made by the Argentine Delegation with a Chilean liaison officer. They were adjusted to the Mixed Commission triangulation with a measured base on the south shore of Lake General Paz. They are at 1:50,000 scale with contours at 25-metre intervals, and cover 10 minutes of latitude north to south. Since the Mixed Commission surveyed a strip of 5 kilometres width on each side of what it considered to be the boundary line, the sheets were of varying widths east to west and are not filled out to the sheet edges. Sheet VII-2, in its three-colour version, shows at its north edge a blue line with the words "Río Encuentro" along it in black. This was a visual indication intended to show the River Encuentro as having its source just north of Portezuelo de las Raíces. Sheet VII-3 shows this same "Río Encuentro" flowing in a south to north direction until it turns westwards towards the River Palena, joining the latter at Boundary Post 16. The blue line gradually increases in width and becomes a double line shortly before the Confluence with the "Río Falso Engaño" which is marked by a thin blue line.

It is now time to resume the story at the diplomatic level. On 9 December 1954 the Argentine Government proposed an Exchange of Notes relative to the establishment of a "*status quo*" in certain frontier areas and submitted a draft of the Notes proposed. The Notes would say that "it is of evident and mutual convenience to put an end to incidents which occur from time to time between the Authorities in those areas, due to the fact that certain sectors of the international boundary are not yet definitely demarcated". The Notes would further say that "the more frequent incidents occur in the River Encuentro-Palena zone" and that for that reason the "*status quo*" should be maintained in that zone "until the Mixed Boundary Demarcation Commission has studied and given a ruling on the definitive boundary line of the said Sector".

Further incidents having occurred in August 1955 the Chilean Government replied to the Argentine proposal with a Note on 14 September 1955. In this Note the Government of Chile stated that it would "instruct its Boundary Commission to try and reach a definitive solution of this problem at the next Plenary Meeting of the Chilean-Argentine Mixed Boundary Commission which is to be held in Buenos Aires in the second half of the month of October in the present year". The said meeting of the Mixed Boundary Commission — its Fifteenth Plenary Meeting — was held between 20 October and 1 November, and on the latter day, the controversial Act (Minute) No. 55 was adopted.

Already in April 1955, as Act (Minute) No. 54 of the Mixed Boundary Commission records, the Argentine Delegation had handed to the Chilean Delegation "the proposal for the boundary line on Sheets VII-1 'Lago General Paz-Palena', VII-2 'Cerro de la Virgen' and VII-3 'Río Encuentro', as well as the reasons supporting the proposals for the line plotted on the last two sheets". The Argentine proposal was for a line exactly the same as that for which she contends in the present proceedings. The Chilean Delegation handed its proposal to the Argentine Delegation on 20 October 1955. This proposal, which was illustrated by a tracing on a map prepared by the Chilean Military Geographical Institute from air photographs (CH.22), was for a line similar to that contended for by Chile in the present proceedings except in the area between Cerro Córdor and Boundary Post 17. The matter was referred to a Sub-Commission, but no agreement was reached, and so the Mixed Boundary Commission itself debated the matter again.

Eventually, as Item Four A of Act (Minute) No. 55 of 1 November 1955 records, the Mixed Boundary Commission arrived at certain conclusions. These were (a) that the line proposed by the Argentine Delegation for the Sheet "Lago General Paz-Palena" (VII-1) was approved; (b) that the stretch of the line plotted on the Sheet "Cerro de la Virgen" (VII-2) was approved, the Chilean Delegation placing on record the fact that this line was approved subject to what was stated in the Informative Report for the period 1941 to 1947 (referred to above); (c) that the line traced on Sheet VII-3 ("Río Encuentro"), was approved, this being a line from Boundary Post VII-4A (north of Boundary Post 16) to the Confluence; (d) was a conclusion not relevant to the sector between Boundary Posts 16 and 17; and finally (e) that, as on the above-mentioned sheets there was left a stretch of the line which had not been approved (namely between Cerro de la Virgen and the Confluence), the Mixed Commission, having duly investigated, agreed the following statement:

Having regard to the fact that the projected lines and the reasons thereof put forward by the Argentine and Chilean Commissions could not be made to accord fully with the terms of the Award of His Majesty Edward VII and the Report of the Arbitration Tribunal, because the source of the western branch of the Río Encuentro is not on the western slopes of the Cerro de la Virgen but at the junction of the graphical co-ordinates:

$$X = 5163550$$

$$Y = 1523670$$

the Mixed Commission, wishing to reach a friendly solution, agrees to refer the matter for consideration and decision to the two foreign Ministries, so that the latter, in accordance with Article 8 of the Protocol concerning the replacement and erection of boundary posts on the Argentine-Chilean frontier, may decide on the joint proposal attached in Annex 5, consisting of a sketch showing the position of the boundary line together with its descriptive text.

Annex No. 5, which was entitled "Description of the Line proposed by Argentina-Chile Mixed Boundaries Commission to both Foreign Ministries for Decision", read as follows:

Starting from the Cerro de la Virgen, which is approved as a point belonging to the international boundary, the line runs north following the line of the local watershed, running through the peak altitude 1,825 metres, and to peaks altitude of 1,270 metres, 1,271 metres, 1,276 metres and 1,330 metres altitude respectively and through the altitude of 733 metres, goes on up to the River Engaño which it

crosses and then rises to the Portezuelo, on the Northern slope of which the River Encuentro has its source at graphical co-ordinates $X = 5163550$ $Y = 1523670$; the boundary line then follows the mid-line of the River Encuentro to the point where it flows into the River Carrenleufú.

It will be convenient henceforth to refer to the point fixed by the co-ordinates given above — which point is just north of Portezuelo de las Raíces — as “the XY point”.

What all this means in more simple language is that the Mixed Boundary Commission approved the line between Boundary Post 17 and Cerro de la Virgen for which Argentina now contends, and also the line, which is not controversial, between Boundary Post 16 and the Confluence. These approved lines were clearly marked on the signed maps of the Mixed Boundary Commission, as described below. The Commission further identified the source of “the western branch of the River Encuentro” as being not on the western slopes of Cerro de la Virgen (as stated in the 1902 Report) but at the XY point. (The significance of this identification is discussed in Part V, below.) Since it felt that, because of this fact, it was impossible to make the line fit in, in every respect, with what was laid down in the Award, the Mixed Boundary Commission submitted a joint compromise proposal (Annex No. 5) for a line joining Cerro de la Virgen to the XY point, and continuing through that point to the Confluence. It is important to note, however, that whereas, in sub-paragraph (e) of Item Four A, the XY point was described as “the source of the western branch of the River Encuentro”, in the joint compromise proposal (Annex No. 5) the XY point was described as the source of the River Encuentro itself.

Cartographically, these conclusions of the Mixed Boundary Commission were represented on Sheets VII-1, VII-2 and VII-3 by the tracing of a black line along the local water-parting between Boundary Post 17 (Post VII-2 according to the Commission's own records) and Cerro de la Virgen; this black line ceased at Cerro de la Virgen and was not resumed again until the Confluence, from which point it followed the River Encuentro and on to Boundary Post 16 (Post VII-3 according to the Commission's own records) and indeed beyond that Post. The black line was represented on all three sheets by a symbol against which appeared the words “Traza fronteriza aprobada”, and all three sheets were signed by the three delegates of the Argentine Delegation and also by the three delegates of the Chilean Delegation.

On 25 November 1955 the Argentine Embassy in Santiago handed to the Ministry for Foreign Affairs of Chile a Memorandum complaining of the activities of the Chilean Carabineros and suggesting “the non-modification of the present situation” pending “the coming definitive demarcation” which, as proposed by the Mixed Boundary Commission, should begin on 15 December. In another Note on 14 December the Argentine Government stated that it had decided to accept “the projected boundary line for the sector referred to in Annex 5 to Act No. 55” of the Mixed Boundary Commission and hoped that the Chilean Government would do likewise. On 19 December, however, the Chilean Ambassador delivered in Buenos Aires a Note which stated as follows:

Notwithstanding the fact that the Chilean Ministry of Foreign Affairs considers that the said proposal is recommendable, it thinks that the line suggested does not fully conform to the Arbitral Award which traced the frontier, nor to the Report of the Arbitration Tribunal.

Consequently, continued the Chilean Note, it is a question of a new line, which rectifies or modifies a situation created by the decision of the Arbitrator, a situation which, according to the studies of the Mixed Commission, is erroneous. Therefore, it is evident that the question cannot be solved by the means of procedures laid down for the functioning of the said body

After referring to the limited competence of the Mixed Boundary Commission, the Chilean Note continued:

Now, as the line proposed by the Mixed Boundary Commission involves a demarcation of frontiers by a modification of the line stipulated by the Arbitrator, which line, according to the said Mixed Commission, cannot be applied owing to the existence of an error of fact, the question of fixing the boundary in the River Encuentro-California-Hill of the Virgin zone must, in the opinion of the Chilean Chancellery, be dealt with between the two Governments in the manner usual in these cases, that is to say, by signing a Treaty or Convention which has to be submitted for approval of the National Congress and for the corresponding ratification.

On 24 February 1956, after the text had been communicated to the Argentine Ambassador in Santiago, the President of Chile issued a statement to the effect that he had given instructions for the rejection of the proposed tracing suggested by the Chilean-Argentine Mixed Boundary Commission; that, in consequence, the position was restored to the state existing before the Fifteenth Plenary Meeting of the Mixed Boundary Commission; and that he had also instructed the Chilean Ambassador in Buenos Aires to inform the Argentine Government of these decisions.

The President's action led to a further Note of 27 February 1956. In this the Chilean Ambassador in Buenos Aires informed the Argentine Government that, in the view of the Government of Chile, the decision to reject the proposed tracing of the frontier in the Palena-California region suggested by the Mixed Boundary Commission at its Fifteenth Plenary Meeting in October 1955 "restores the position to the state which existed prior to the said meeting". However, in a Note handed to the Chilean Ambassador on 6 March 1956, the Argentine Under-Secretary for Foreign Affairs disagreed with this view. He pointed out that "among the decisions unanimously taken at the meetings held last October the definitive boundary line from Boundary Post 16, where the River Encuentro runs into the River Palena or Carrenleufú, to the confluence of the River Falso Engaño with the said River Encuentro, was approved. At the same time, the boundary line was finally approved from Cerro de la Virgen, a natural boundary post established as such by the Mixed Commission in 1947, . . . to Boundary Post 17 on the northern shores of Lake Vintter or General Paz. . . . The said Act, in conformity with the terms of Article 6 of the Protocol of 16 April 1941 concerning the replacement and erection of boundary posts along the Argentine-Chile frontier, is to have full effect and be considered final and binding, each of the two countries being entitled, from that time, to exercise full sovereignty in perpetuity over their respective territories without further formalities. Furthermore, the same Act No. 55 and its Annex No. 5 deal with an intermediate sector of approximately 20 kilometres, running from the confluence of the River Falso Engaño with the River Encuentro to the aforementioned Cerro de la Virgen, which intermediate stretch was submitted by the Mixed Commission to the Foreign Ministries of the two countries for decision." In a Note of 18 April 1956 the Chilean Government disputed this Argentine interpretation.

During the next few years further incidents took place in the disputed area and more Notes were exchanged between the two Governments. On 12 June 1960 the Argentine Minister for Foreign Affairs and Worship and the Chilean Ambassador in Buenos Aires signed a Protocol by which it was proposed to ask Her Britannic Majesty to arbitrate the dispute. On the same day they also signed an Instrument Supplemental to the 1941 Protocol by which it was proposed to build an automatic arbitration procedure into the machinery of the Mixed Boundary Commission. Neither of these instruments, however, was ratified and on 15 September 1964, as already stated, Chile invoked the General Treaty of Arbitration of 28 May 1902.

PART V

Having thus described the geographical, historical and diplomatic background, the Court will now consider the legal aspects of the case.

A. THE QUESTION PUT TO THE COURT

The Court has been established by Her Majesty's Government for the purpose of fulfilling their duties as Arbitrator under the General Treaty of Arbitration concluded between the Argentine Republic and the Republic of Chile at Santiago on 28 May 1902.

Article VIII of that Treaty provides that "The Arbiter shall decide in accordance with the principles of international law, unless the Agreement calls for the application of special rules or authorises the Arbiter to decide in the character of a friendly mediator."

As has been shown in Part I, above, because there was no Agreement between the Parties concerning the points, questions, or differences involved in the controversy between them, it fell to Her Majesty's Government to determine the *Compromiso*. Moreover, since there was no Agreement between the Parties calling for the application of special rules or authorising the Arbiter to decide in the character of a friendly mediator, Her Majesty's Government instructed the Court, in Article I (2) of the *Compromiso*, to reach its conclusions on the Question put to it "in accordance with the principles of international law".

The Question which the Court has to consider and on which it has to report its conclusions to Her Majesty's Government is set out in Article I (1) of the *Compromiso* and is as follows: "To the extent, if any, that the course of the boundary between the territories of the Parties in the Sector between boundary posts 16 and 17 has remained unsettled since the 1902 Award, what, on the proper interpretation and fulfilment of that Award, is the course of the boundary in that Sector?"

It is further stated that "The formulation of the above question shall be without prejudice to any burden of proof."

From the formulation of the Question put to the Court it is clear that the Court is instructed to deal with two points in dispute. The first point is: to what extent, if any, has the course of the boundary between the territories of the Parties in the sector between Boundary Posts 16 and 17 remained unsettled since the Award of 1902? The second point is: what, on the proper interpretation and fulfilment of that Award, is the course of the boundary in that sector?

The first is a preliminary point. If the Court's answer to it were to be that no part of the boundary between Boundary Posts 16 and 17 has

remained unsettled, it would merely have to state in what way the course of the boundary in that sector had been settled. In that event, the Court would not need to go on itself to interpret and fulfil the Award of 1902.

If, on the other hand, the Court were to find that the whole course of the boundary between Boundary Posts 16 and 17 has remained unsettled, then it would be necessary for the Court to interpret and fulfil the 1902 Award for the whole course of the boundary in that sector.

Finally, if the Court were to find that part of the boundary between Boundary Posts 16 and 17 has remained unsettled and that part of it has been settled, it would have to specify which part has been settled, and in what manner, and then go on itself to interpret and fulfil the 1902 Award in respect of the part remaining unsettled.

Before dealing with the two main points in dispute, the question of "settlement" on the one hand, and the question of "interpretation and fulfilment" on the other hand, the Court must address itself to certain prior questions. They are prior questions in the sense that, on the answer that is given to them, will depend the Court's approach to the other problems confronting it. The first of these prior questions is the question of estoppel, and the second is the question of the critical date.

(i) *Estoppel*

It seems clear from the decision of the International Court of Justice in the *Case concerning the Temple of Preah Vihear (Cambodia v. Thailand)*, *Merits*, (I.C.J. Reports 1962, p. 6), and especially from the learned Separate Opinion of Vice-President Alfaro in that case, that there is in international law a principle, which is moreover a principle of substantive law and not just a technical rule of evidence, according to which "a State party to an international litigation is bound by its previous acts or attitude when they are in contradiction with its claims in the litigation". (See Vice-President Alfaro's Opinion at page 39 of the report.) This principle is designated by a number of different terms, of which "estoppel" and "preclusion" are the most common. But it is also clear that these terms are not to be understood in quite the same sense as they are in municipal law. With that qualification in mind, this Court will employ the term "estoppel".

Again to quote from the same Opinion of Vice-President Alfaro: "Whatever term or terms be employed to designate this principle such as it has been applied in the international sphere, its substance is always the same: inconsistency between claims or allegations put forward by a State, and its previous conduct in connection therewith, is not admissible (*allegans contraria non audiendus est*)". That this principle can operate with decisive effect in international litigation, and especially in a boundary dispute, is clear from the *Temple* case itself where one party was held to its acceptance of a map even though the frontier line traced on this map did not correspond with the watershed line provided for in the boundary treaty between the two disputant countries. Not surprisingly, both Parties to the present litigation have sought to pray in aid this doctrine of estoppel.

Chile argues that Argentina "by her representations to Chile in her diplomatic Notes of 1913-15 regarding the course and source of the river whose mouth is opposite Post 16, was and still now is precluded from denying that the boundary follows the course of a channel which has its source in the vicinity of the Cerro Herrero". (Final Submission No. 33.) This correspondence has been summarised in Part IV, above. To this Argentina replies that, by reason of a series of official Chilean maps issued between 1913 and 1952, Chile is precluded from putting forward her present

contention that the boundary should follow the channel called by Argentina the Río Falso Engaño and that it should not follow the channel called by Argentina the Río Encuentro. In Argentina's view, Chile is also precluded by these same maps from arguing that the boundary should not pass through Cerro de la Virgen.

Thus the "Llanquihue map" (A59) sent by Chile to Argentina on 26 December 1913 — in reply to the Argentine Note of 9 December of that year which referred to Boundary Post 16 being "not at the place indicated in the Arbitral Award, that is to say, opposite the mouth of the River Encuentro, but more to the East of this point, opposite the mouth of another different river which has its source in the vicinity of the Peak Herrero" so that "it becomes impossible for the boundary line to pass through the Virgin Peak" — itself shows the boundary running in a north-south direction along a river named "Río Encuentro" through Cerro de la Virgen and then along the water-parting down to Boundary Post 17. Leaving aside the intervening maps, the Chilean Carta Preliminar of 1952 (A32) also shows the boundary line taking a north-south direction along a river named "Río Encuentro" and through Cerro de la Virgen: it definitely does not follow the channel now referred to by Chile as the "major channel" or the "true Encuentro". There are two comments to be made on this map. First, the line between Boundary Posts 16 and 17 is described by the words "Límite Internacional en Estudio". Secondly, "Co. de la Virgen" is incorrectly located too far east and the course of the River Engaño is incorrectly shown.

Chile's explanation of this erroneous cartography extending over a period of 40 years is that for a long time she remained in ignorance of the error in the Award Map and therefore continued to be influenced by that Map; that Argentina was responsible for that error; and that Argentina should have told her of the error and did not. The Court does not consider that Argentina can be held responsible for the error in the Award Map or that she was under any legal duty to inform Chile or the Arbitrator of it when she became aware of it. In any case the Chilean authorities were put on notice in 1913 that there was some difficulty in applying the 1902 Award in the sector between Boundary Posts 16 and 17. It is understandable, however, in the circumstances, that they remained somewhat ignorant of the geography of the disputed area until considerably later. As Counsel for Chile pointed out (morning session on 21 October), Chile has a very long frontier and this was a small area far removed from the main centres. Chile's explanations of her erroneous cartography are, however, hard to reconcile with her main contention that "in the period subsequent to 1902 the Award has been fulfilled by the Parties in a manner which is consistent only with the belief that the boundary line followed the River Encuentro along the major channel to its source in the Cordón de las Vírgenes", that in the period between 1902 and 1928 the disputed area was regarded by the settlers "as lying on the Chilean side of the boundary" and further that "there is no evidence of comparable Argentine activity or settlement" (Final Submission No. 25).

The Court is prepared to accept Chile's explanations of her erroneous cartography between 1913 and 1952, it being understood however that these explanations considerably detract from Chile's claim to have been effectively administering the disputed area during this period, and moreover to have been the only authority doing so. Further, in view of the Llanquihue map, and the subsequent maps, Chile can hardly claim that she relied upon, or was misled by, the Argentine statement in the Note of 9 December 1913 to the effect that the river opposite Boundary Post 16 had its source in the

vicinity of Cerro Herrero. This statement is certainly strong evidence against Argentina on this point, especially in so far as it throws light on geographical and governmental opinion in Argentina itself with regard to the Encuentro at a time not long after the making of the Award of 1902. This aspect of the matter is discussed later. But, given that Argentina's object in raising the matter was to have Boundary Post 16 moved to another place and given the still uncertain state of the geographical knowledge of the area prevailing at that time, the Court is not prepared to go so far as to say that this single sentence in the Note of 9 December 1913 precludes Argentina from putting forward her present contention that the source of the Encuentro is not in the vicinity of Cerro Herrero but rather just north of Portezuelo de las Raíces.

The Court will next consider Chile's contention that, by reason of the diplomatic correspondence of 1952, "Argentina is precluded from claiming that the 'minor channel' is the Encuentro and from contesting the Chilean status of California" (Final Submission No. 39). This correspondence has already been summarised in Part IV above. The Court is of the opinion that no estoppel against Argentina is made out. The Parties were not sufficiently *ad idem* as to the extent of the "River Encuentro" and the meaning of the even vaguer term "California". From evidence given to the Court, it is clear that the expression "California" has been used in a number of senses, varying between virtually the whole of the disputed area and a single property therein. Moreover, in considering the correspondence of 1952, it is necessary to bear in mind the Chilean Carta Preliminar of the same date.

Accordingly, the Court finds that no claim of estoppel is made out by either Party against the other, and that therefore both Parties are free without preclusion of any kind to put forward their respective contentions as regards the course of the boundary. The Court will presently examine these contentions on their merits.

In this connection it is pertinent to add that neither in the correspondence of 1913-15 nor in that of 1952 does the Court find any evidence—as has at times been asserted by Chile—of any common understanding, express or implied, between the Parties that the boundary should follow the line now contended for by Chile.

(ii) *Critical Date*

As in most territorial disputes there has been much discussion of the question of the "critical date". It is agreed by both Parties that by this expression is meant in a general way a date after which the Court should not admit evidence of the activities of the Parties.

It is clear, however, that each Party, viewing its own activities as confirmation of an already existing sovereignty and the activities of the other Party merely as an intrusion and an effort to build up a new claim, sees the critical date rather as a means of shutting out evidence of its opponent's activities than of excluding its own. In any case the Parties are not so very far apart in their ideas as to when the critical date should be fixed. Argentina stresses the establishment of the Argentina-Chile Mixed Boundary Commission in 1941 as an event which should have an inhibitory effect upon any attempt to establish sovereignty over a disputed frontier region merely through the exercise of administrative acts. Chile, on the other hand, argues that by 1945, or at least 1952, her administration over the disputed area was so well established that any Argentine activity subsequent to those dates must simply be regarded as an effort to present a new claim. (Final Submissions Nos. 35, 37 and 38.)

It is agreed by both Parties that the notion of the critical date is not a rigid one and that a good deal is left to the appreciation of the Court, and moreover that the critical date is not necessarily the same for all purposes. In so far as the Court is asked to interpret and fulfil the Award of 1902, there is obviously a sense in which the critical date is 1902 itself—or at the latest 1903, the date of the demarcation. Neither Party is free to put forward a claim that flies in the face of the Award. In so far, however, as the Court is also asked in the *Compromiso* to say to what extent, if any, the course of the boundary between the territories of the Parties in the sector between Boundary Posts 16 and 17 has remained unsettled since the 1902 Award, there is equally obviously a sense in which the critical date is the date of the submission of the dispute to the Arbitrator, *i.e.*, 1964.

For these reasons, the Court has considered the notion of the critical date to be of little value in the present litigation and has examined all the evidence submitted to it, irrespective of the date of the acts to which such evidence relates.

B. THE EXTENT OF SETTLEMENT OF THE COURSE OF THE BOUNDARY

The Court has to report upon the extent, if any, to which the course of the boundary between the territories of the Parties in the sector between Boundary Posts 16 and 17 has remained unsettled since the 1902 Award.

It is common ground that a geographical error of some kind was made in 1902-03, although the Parties do not agree as to what the error was. Argentina sees the error as consisting mainly in the decision of Captain Dickson to place Boundary Post 16 where he did. Chile considers that Boundary Post 16 was correctly placed and that the error consisted mainly of the wrong depiction of the topography on the Award Map with the result that, contrary to the Arbitrator's real intention in 1902, the Award makes the boundary pass through Cerro de la Virgen instead of through the mountain which Chile later came to call "Pico Virgen" or "Pico de la Virgen".

The problem of identification of geographical features involved in the Award of 1902 and the demarcation of 1903 has already been discussed in Part III, above. It is to the legal problems arising from the Award and the demarcation that the Court must now turn.

Since the 1902 Award was a valid Award, it must be assumed to have settled the entire boundary between Argentina and Chile in the area covered by it—including the boundary between Boundary Posts 16 and 17—except to the extent to which it is impossible to apply the Award to the ground. In other words the decision as to what part of the boundary between Boundary Posts 16 and 17 remained unsettled after the Award and the demarcation is the same as the decision as to what is the part of the boundary in that sector in which the 1902 Award cannot be applied to the ground.

Argentina contends that the boundary line between Boundary Post 16 and the Confluence was settled by the Award of 1902 together with the demarcation of 1903, or alternatively by the Mixed Boundary Commission in 1955 (Final Submission No. 7); that the boundary line between the Confluence and the source of the Encuentro was settled by a combination of the Award of 1902, the demarcation of 1903, and the decision of the Mixed Boundary Commission in 1955 (Final Submission No. 8); and that the boundary line between Cerro de la Virgen and Boundary Post 17 was settled by the 1902 Award or alternatively by the Mixed Boundary Commission in 1955. (Final Submission No. 10.) Argentina admits that

the boundary line between the source of the River Encuentro, as it was identified by the Mixed Boundary Commission in 1955 (*i.e.*, at the XY point just north of Portezuelo de la Raíces), and Cerro de la Virgen has remained unsettled.

Argentina's Final Submission No. 8 just referred to requires some comment. It is a Submission that goes beyond Submission No. 7 presented in the Memorial, where it was contended that the part of the boundary between the Confluence and the XY point had been settled by the 1902 Award "subject only to identification by this Court of the course of the River Encuentro upstream of the confluence of the River Falso Engaño with the River Encuentro". Paragraph 171 of the Argentine Memorial explained Argentina's contention (as it then was) as follows:

It should be stated at this stage that it never has been contended, and is not contended in these proceedings, that the boundary has been settled by any decision of the Mixed Commission between the confluence of the Rivers Encuentro and Falso Engaño and Cerro de la Virgen. The contents of the Act discussed above make it quite clear that, with reference to this stretch of boundary, the Commission was only putting forward to the Governments a recommended compromise, formulated by all the members of the Commission, to solve the problem with which they were faced. This recommended solution was received favourably by the Argentine Government, but was eventually rejected by the Chilean Government, and consequently never had any binding effect upon the Parties. This Court may well feel that, for the purposes of its task, the real value of paragraph (e) of Item 4A of Act No. 55 is in its identification of the course of the River Encuentro by fixing its source at the graphical co-ordinates given.

In the light of Argentina's Final Submission No. 8, however, the Court understands that Argentina's final position is that the decision of the Mixed Boundary Commission with regard to the source of the Encuentro is to be treated not merely as evidence of where the source of that river might be but as actually amounting to a "settlement", when taken together with the Award of 1902 and the demarcation of 1903, of the course of the boundary within the meaning of the *Compromiso*.

While agreeing that the 1902 Award, together with the demarcation of 1903, settled in principle the boundary between Boundary Posts 16 and 17, as well as the position of the Boundary Posts themselves, Chile has declined to take the view that the Award and the demarcation settled certain parts of the boundary line so as to render it unnecessary for the Court to interpret and fulfil the Award as a whole. Thus, in Chile's Final Submissions, the question of settlement as such is not reached until Submissions Nos. 40 to 43, and then only for the purpose of contending that no settlement of any part of the boundary was reached through the proceedings of the Mixed Boundary Commission.

In contrast with Argentina's attitude on settlement, which is that part of the boundary in the sector has been settled and part has remained unsettled, Chile's attitude may be described as an "all or nothing" approach. Thus Chile is adamant in asserting that no settlement of any part of the boundary was achieved through the proceedings of the Mixed Boundary Commission. As for settlement by the Award itself, Chile's attitude is no less categorical. It is described in her Counter-Memorial as follows:

Whatever may be the position in regard to the lower reach of the Encuentro from 'watersmeet' (*i.e.*, the Confluence) to Post 16, the geographical error immediately and in the most direct fashion threw the gravest doubt upon the 'identifi-

cation' of the Cerro Virgen as a point upon the boundary and, in consequence, also upon the whole of the description of the line from the Cerro Virgen to Post 17 (page 183).

It was also said that the effect of the error was to bring about "a total rupture of the course of the boundary described in the Award" and that this rupture "threw the whole line between Posts 16 and 17 into doubt", leaving "the whole line between Posts 16 and 17 'unsettled' within the meaning of Article I of the Compromiso" (page 181).

The attitude of Chile on the question of settlement is therefore that the effect of the geographical error left only Boundary Posts 16 and 17 settled, leaving the whole line between them unsettled. For this reason Counsel for Chile was careful to point out that even the fact that both Parties contended for the same line between Boundary Post 16 and the Confluence did not constitute a settlement within the meaning of the Compromiso. (Afternoon session on 7 October.)

There is, however, an alternative Chilean position on the question of settlement. As Counsel for Chile said: "Chile does maintain that considerations of law and of fact have determined — and therefore constrain the Court, as a matter of law, to determine — that the course of the boundary in the sector is that which is contended for by Chile in the present proceedings." (Afternoon session of 7 October.) Further, as the Agent for Chile said:

But it is possible that, contrary to our contention, the Court could take a broader view of the concept of settlement. In that case, we are anxious that the Court should appreciate that a broader view of settlement would operate in favour of Chile. In that case, we say that the whole of the boundary in the disputed sector was settled in favour of Chile, first, by the Arbitral Proceedings that ended in the demarcation of 1903 and, second, by the correspondence of 1913-15. (Afternoon session of 21 October.)

This broader view of settlement was already foreshadowed in the Chilean Memorial where it was stated that "the only settlement of the boundary which has taken place in the Sector between Posts 16 and 17 is that which occurred as a result of the fulfilment of the 1902 Award by the Parties between 1902 and 1952 and which established the course of the River Encuentro to its source on the slopes of the Pico de la Virgen and the watershed of the Cordón de las Vírgenes as the boundary between the two countries in this Sector" (pages 474-5).

This view was repeated in the Chilean Counter-Memorial where it was said: "... the meaning of the Award, rendered unclear and unsettled by the geographical error, had in large measure been made clear and 'settled' through the acts of the Parties before the Commission even began its task of demarcation" (page 189). Chile was here referring to the Argentina-Chile Mixed Boundary Commission established in 1941.

As appears from Part III D, above, the Court has identified on the ground most of the features named in the Award. It finds no difficulty in applying the Award to the ground in the parts of the sector between Boundary Post 16 and the Confluence and between Cerro de la Virgen and Boundary Post 17. The Court therefore accepts Argentina's Submissions that the Award, taken together with the demarcation of 1903, settled the boundary between Boundary Post 16 and the Confluence and also between Cerro de la Virgen and Boundary Post 17.

The Court cannot accept Chile's view that all that the 1902 Award settled

was the position of Boundary Posts 16 and 17; that the line between those Boundary Posts was totally ruptured by the error; and that this Court should draw a new line inconsistent with the line described in the Award and the Report and depicted on the Award Map, but said to be consistent with certain principles laid down in the Award, or more specifically in the preparatory work thereof. Without even considering the question whether such a view is consistent with the validity of the Award, the Chilean thesis is defective in so far as it implies that the 1902 Award settled not so much a line as the principles according to which a line might be drawn. The Chilean thesis also seems to regard the boundary laid down by the Award as made up of a number of self-contained sectors rather than (as in fact it was) a continuous line. Although sectors can be said to have come into existence as a matter of fact with the erection of boundary posts by the Demarcation Commission in 1903, the sector between Boundary Posts 16 and 17 had no separate juridical existence until it became necessary to define the area in dispute for the purposes of the present arbitration. It is significant that, for the purpose of its operations, the Mixed Boundary Commission divided the boundary line not into sectors between boundary posts but into Sections of 2 degrees of latitude each. Moreover, the very form of the Question in Article I (1) of the Compromiso — “To the extent, *if any*, that the course of the boundary between the territories of the Parties in the Sector between boundary posts 16 and 17 has remained unsettled since the 1902 Award” — expressly envisages the possibility that a rupture of the line between these two posts need not be a “total rupture”.

Chile also disregards the fact that in the Award “the peak called Virgen” is no less an important point on the line than are the crossing-places on the River Palena and Lake General Paz. In the instructions which he received from Sir Thomas Holdich, Captain Dickson was told that “wherever the boundary was defined by strong, well-marked, and unmistakable topographical features no demarcation is necessary” and that pillars and boundary marks “need only be erected . . . where the topographical features which support the boundary are weak” (see Part III C, above). There can be no doubt that Cerro de la Virgen is a “strong, well-marked, and unmistakable topographical feature”, and there can equally be no doubt that this feature is “the peak called Virgen” of the Award. It was in clear recognition of that fact that the Mixed Boundary Commission described Cerro de la Virgen as “a natural boundary post”.

Argentina, however, also argues that the 1902 Award, together with the demarcation of 1903, settled the boundary line between the Confluence and the source of the Encuentro, subject only to the identification of the channel to be followed upstream of the Confluence and the exact source of that channel. As has been shown above, Argentina further contends that this identification took place in 1955 through the proceedings of the Mixed Boundary Commission. That Commission, it is argued, decided that the source of the Encuentro was at the XY point just north of Portezuelo de las Raíces, so that, in Argentina’s view, the course of the boundary now became settled as far as this XY point, leaving unsettled only the boundary between the XY point and Cerro de la Virgen.

The Court cannot accept this Argentine argument. The basic reason is that, once it is realised that the Encuentro does not have its source on Cerro de la Virgen, it is by no means clear — and it is therefore not settled under the Award — that the boundary should follow the Encuentro as far as its source. To that extent it is immaterial where the Mixed Boundary Commission decided to locate the source of the Encuentro.

In adopting the conclusion in sub-paragraph (e) of Item Four A of Act (Minute) No. 55 the Mixed Boundary Commission was proceeding upon the assumption — wrongly, as the Court will show — that the boundary must pass through the source of the Encuentro. That being its approach, the Mixed Boundary Commission sought to do two things. It sought, first, to identify the source of the western branch of the Encuentro. This it did at the XY point. Secondly, it put forward, in accordance with Article 8 of the Protocol of 1941, a “joint proposal”, which was frankly a compromise and which was no less frankly put forward with a view to reaching “a friendly solution” (as Argentina calls it) or “a harmonious solution” (as Chile calls it). This being so, there can be no question of the identification of the source of the western branch of the River Encuentro contained in sub-paragraph (e) of Item Four A of Act (Minute) No. 55 or the identification simply of the source of the River Encuentro contained in Annex No. 5 thereto, being extracted from the joint compromise proposal of which it formed a part and being treated as amounting to a “settlement” of any part of the boundary line within the meaning of the Compromiso. Whilst it naturally feels obliged to pay respect to the work of the Argentina-Chile Mixed Boundary Commission, of whose professional competence it has formed a high opinion, the Court cannot regard this identification of the source of the Encuentro by the Commission, arrived at in these circumstances, as binding upon it. That identification is merely evidence which the Court must take into account, along with other evidence, when it comes to consider the whole question of the course of the boundary upstream of the Confluence, as it will very shortly do.

The Court will now turn again to the stretch of the frontier between Boundary Post 16 and the Confluence, and also to the stretch between Boundary Post 17 and Cerro de la Virgen. As the Court has already found these stretches to have been settled by the Award itself, it is not necessary to consider in any detail Argentina’s alternative claim that these stretches were settled by the Mixed Boundary Commission through its decision recorded in Act (Minute) No. 55 and Chile’s contentions that they were not so settled. Chile has advanced a number of arguments why these decisions should be considered as totally without effect and not amounting to any kind of settlement. These arguments were directed towards showing that the Commission had no competence to settle parts of the boundary left unsettled by the Award. They have no bearing upon a situation in which, as the Court has found, the parts of the boundary concerned had already been settled by the Award itself. It suffices for the Court to say that, when the Mixed Boundary Commission approved the black lines shown on Sheets VII-1, 2 and 3 as indicating the boundary between Boundary Post 16 and the Confluence, and between Boundary Post 17 and Cerro de la Virgen, it was acting within its competence. As these parts of the boundary had already been settled by the 1902 Award, it is perhaps more true to say that the Mixed Boundary Commission confirmed the earlier settlement than that it settled these parts again. On the other hand, in so far as the lines were now traced with more precision and on maps that were more modern and more complete than the Award Map, it can be said that the process of settlement of the boundary line was carried a stage further in 1955. The making more precise of a boundary line that has already been settled is after all one of the principal purposes for which a boundary Commission, such as the Argentina-Chile Mixed Boundary Commission, is set up. In the opinion of the Court, this task was satisfactorily carried out in 1955 by the Mixed Boundary Commission acting entirely within its competence. It

makes no difference that no more intermediate boundary posts were erected. In fact, the boundary between Boundary Post 16 and the Confluence, and again between Cerro de la Virgen and Boundary Post 17 is so clear that the erection of further boundary posts along these stretches may not be necessary.

There is only one further observation that needs to be made concerning the work of the Mixed Boundary Commission. Chile has asserted that "the resolutions in Minute 55 are vitiated by the erroneous representation of the geographical facts on the Commission's survey maps which formed the basis for the adoptions of those resolutions". (Final Submission No. 41 (f).) In the Chilean Memorial it was stated that "these maps were seriously defective in a number of significant respects" (page 299). The principal criticisms were, first, that the sheets did not extend far enough to include the Cordón de las Vírgenes (Chile's name for the range, one of the peaks of which is the mountain called "Pico Virgen" by Chile); secondly, that the Southern Channel was marked by a double line whereas the Eastern Channel was marked by a fine line; thirdly, that the Southern Channel was named "Río Encuentro" and the Eastern Channel was named "Río Falso Engaño"; and fourthly, that the source of the Southern Channel was represented as being at Portezuelo de las Raíces instead of on the slopes of the Cordón de los Morros. Many of these criticisms arise from the fact that it was the practice of the Commission to map a strip of only 5 kilometres on each side of the boundary as it thought it to be, and from the fact that Sheets VII-2 and 3 did not cover the full extent of the Encuentro basin.

As for the marking of the Eastern Channel by a thin line, Counsel for Argentina conceded at the preliminary oral hearings that this Channel "should be represented on the map by a double blue line" (Morning session of 30 December 1965.) Chile's anxiety on this point is a reflection of her concern that the Eastern Channel should be regarded the "major channel" of the Encuentro. It is necessary to point out, however, that the thickness of lines representing rivers on maps is determined simply by the breadth of those rivers. For example, Article 18 in Chapter II, Part IV of the Regulations of the Argentina-Chile Mixed Boundary Commission states that: "Water-courses, ravines, etc., will be represented by a sign in a single line when the width thereof is less than 5 metres; larger ones will be indicated by a double line. . . ." The determination of the question which of two channels of a river is the major channel depends (in the absence of tradition) upon a number of other factors. There is nothing in Chile's criticisms that in any way invalidates the Commission's decisions with respect to those parts of the boundary that were clearly settled by the 1902 Award, namely between Boundary Post 16 and the Confluence, and between Cerro de la Virgen and Boundary Post 17.

The Court therefore decides that the course of the boundary between Boundary Post 16 and the Confluence was settled by the 1902 Award and the 1903 demarcation, the settlement being that from Boundary Post 16 on the north bank of the River Palena the boundary shall cross the Palena to the mouth of the River Encuentro: it shall then follow the Encuentro to the Confluence.

The Court also decides that the course of the boundary between Cerro de la Virgen and Boundary Post 17 was settled by the 1902 Award and the 1903 demarcation, the settlement being that from Cerro de la Virgen the boundary shall follow the local water-parting southwards to the northern shore of Lake General Paz at Boundary Post 17.

In view of these decisions the Court must restrict its interpretation and fulfilment of the Award to the stretch of the boundary between the Conflu-

ence and Cerro de la Virgen unless Chile can show that the parts of the boundary thus found to have been settled in 1902-03 became unsettled since that time or became settled in a different way.

Chile has introduced a great deal of evidence designed to show effective Chilean administration over the disputed area. There is not much evidence for the period between 1903 and 1928. There is considerably more for the period between 1928 and 1945/1952 which Chile regards as the critical date. The evidence consists of material frequently employed for substantiating claims to territorial sovereignty, *e.g.*, registration of land titles; imposition of land tax; registration of settlers with the police; registration of births, marriages and deaths; animal brand registers; imposition of military service; electoral rolls; legal transactions; administrative, police and judicial activity of various kinds; taking of censuses; provision of health and educational facilities and so on. Even unofficial acts are relied upon, such as ministrations by priests coming under the Apostolic Vicarage of Aysen in Chile, and strenuous efforts have also been made to show that the settlers of the disputed area have Chilean loyalties and have "by their conduct attorned to the Chilean authorities". (Final Submission No. 25.)

Argentina has claimed throughout the proceedings that since "the interpretation and fulfilment of the Award" is a matter for the Court, and not for the Parties, all this Chilean evidence is irrelevant. While maintaining this general position, Argentina has criticised and sought to discredit much of the Chilean evidence, especially those parts of it which depend upon the acts of local as opposed to central authorities, and even more those parts of it which reflect the conduct and sentiments of private individuals. Subject to her general reservation, Argentina has also submitted evidence of Argentine activity in the disputed area, which Chile in her turn has sought to discredit for various reasons. The very voluminous material submitted by both sides, and especially by Chile, came to be known in the case as "the fulfilment material".

Although the Court — for reasons which will be explained below — shares Argentina's view that the reference to interpretation and fulfilment in the Compromiso is intended to mean interpretation and fulfilment by the Court rather than by the Parties, the Court has not taken the view that "the fulfilment material" submitted by either side ought to be excluded as completely irrelevant. This is because, in the Court's opinion, such evidence is relevant to the question of settlement — whether for instance what was settled in 1902-03 has since become unsettled or has become settled in a different way, and whether too "the fulfilment material" throws any light on the question whether what was left unsettled in 1902-03 has since become settled.

The Court, after considering "the fulfilment material" carefully, has come to the conclusion that, while it may be relevant to these questions, it advances them no further. The evidence is more fully documented as regards some parts of the disputed zone than as regards others. But, taken as a whole, the evidence is just what one would expect in any disputed zone. It shows settlers not surprisingly turning to the authorities of both countries in case of need and doing their best to keep on good terms with both sides. The evidence is quite insufficient to establish any abandonment by Argentina of her rights under the 1902 Award or any acquisition of title by Chile through adverse possession of territory adjacent to those parts of the boundary line settled in 1902-03. No more, in the Court's view, does the evidence establish that the parts of the line remaining unsettled in 1903 have subsequently become settled in the sense now contended for by Chile.

C. INTERPRETATION AND FULFILMENT OF THE AWARD

Now that it has decided that the course of the boundary between Boundary Post 16 and the Confluence, and again between Boundary Post 17 and Cerro de la Virgen, has been settled within the meaning of Article I (1) of the *Compromiso*, it remains for the Court to find what, on the proper interpretation and fulfilment of the 1902 Award, is the course of the boundary in the unsettled part of the sector, *i.e.*, the part between the Confluence and Cerro de la Virgen.

The Parties have a very different approach to the phrase "interpretation and fulfilment". While both sides agree that there are certain principles of interpretation which apply to an Award just as much as to any other instrument, including in particular a treaty, Argentina considers that there are certain features about an Award which render it inappropriate to apply to such an instrument all the principles of interpretation which may properly be used in the case of a treaty. For example, Argentina adopts a reserved attitude towards the use of preparatory work and the subsequent practice of the Parties as aids to the interpretation of an Award. Chile, on the other hand, thinks that in interpreting the 1902 Award the Court should take into account the circumstances surrounding the Award, including especially various reports and letters of Sir Thomas Holdich, and also the manner in which the Award has subsequently been interpreted by the Parties. Under this latter heading she includes even the attitude and conduct of both the inhabitants of the disputed area and the local Chilean authorities.

The Court is of the view that it is proper to apply stricter rules to the interpretation of an Award determined by an Arbitrator than to a treaty which results from negotiation between two or more Parties, where the process of interpretation may involve endeavouring to ascertain the common will of those Parties. In such cases it may be helpful to seek evidence of that common will either in preparatory documents or even in subsequent actions of the Parties. But with regard to the 1902 Award, the Court is satisfied that, in order to determine the intention of the Arbitrator, it is not necessary to look outside the three documents of which the Award consists, namely the Award itself and the Report and Maps referred to in Article V of the Award. It is not so much a question of the Arbitrator's intention as of that intention being frustrated by an incorrect appreciation of the geography. As for the subsequent conduct of the Parties, including also the conduct of private individuals and local authorities, the Court fails to see how that can throw any light on the Arbitrator's intention.

The Parties are even more divided in their attitude to the question of fulfilment. As has already been indicated in Part V B of this Report, the Court is of the view that the manner in which the Parties have fulfilled the Award is relevant to the question whether, and if so to what extent, the course of the boundary between Boundary Posts 16 and 17 has remained unsettled since the 1902 Award. In that context the Court has examined the evidence filed by both Parties and has pronounced its conclusion that the Award itself — including the demarcation of 1903 — settled the course of the boundary between Boundary Post 16 and the Confluence, and also between Boundary Post 17 and Cerro de la Virgen; that no further parts of the boundary have been settled since 1903; and that nothing has happened since 1903 to unsettle any parts of the boundary settled at that time. The matter that now has to be considered, however, is the meaning of "fulfilment" in the phrase "interpretation and fulfilment" contained in the latter part of the Question referred to the Court.

Chile claims that the word "fulfilment", as it appears in Article I (1) of the Compromiso, refers mainly to fulfilment by the Parties rather than by the Court. Argentina, however, while admitting that "fulfilment is certainly not a legal term of art", goes on to give to it the meaning mentioned in the *Shorter Oxford English Dictionary* of "to make complete, to supply what is lacking in". The Argentine Government continues as follows: "In such a sense, 'fulfilment' may be thought to be a cogent way of expressing precisely what the Argentine Republic is asking the Court to do in the middle part of the boundary line in the Sector." (Memorial, paragraph 220.) This latter sentence is to be understood as a reference to the line which, in the view of the Argentine Government, should be drawn between Cerro de la Virgen and the source of the Encuentro — which is considered by that Government to be just north of Portezuelo de las Raíces. Chile retorts that the word "fulfilment" cannot have the meaning sought to be put upon it by Argentina.

The origin of the expression "interpretation and fulfilment", as it appears in the Compromiso, is Article II of the General Treaty of Arbitration between Argentina and Chile of 28 May 1902, which, as translated in *British and Foreign State Papers*, Vol. 95, page 759, reads as follows:

Questions which have already been the subject of definite settlement between the High Contracting Parties cannot, in virtue of this Treaty, be reopened. In such cases arbitration will be limited exclusively to the questions which may arise respecting the validity, the interpretation, and the fulfilment of such agreements.

The Treaty was in Spanish, and the relevant words were "interpretación i cumplimiento" (Argentine Memorial, paragraph 91). The Court, which is in any case bound by the Compromiso, of which the authentic text is in English, is satisfied that there is no problem of translation here: it is a problem rather of giving a precise meaning to the phrase "interpretation and fulfilment".

The Court believes this phrase to be the equivalent of "interpretation and application" which appears in many compromissory clauses. The addition of the word "application" ("fulfilment") is due to the desire of Parties to get disputes finally settled, which might not otherwise be the case if the tribunal authorised to decide the dispute were empowered to interpret only. Particularly is this true of boundary disputes, where questions of demarcation as well as delimitation are involved. The Court considers therefore that the phrase "interpretation and fulfilment" is a comprehensive expression which authorises it to examine the demarcation of 1903 as well as the 1902 Award itself, and also authorises, nay requires, the Court, while avoiding any revision or modification of the 1902 Award, nevertheless to supply any deficiencies therein in a manner consistent as far as possible with the Arbitrator's intention.

Having regard to the place of the expression "proper interpretation and fulfilment of that Award" (*i.e.*, the 1902 Award) in the Question put in the Compromiso, the Court is satisfied that the task of interpretation and fulfilment is one mainly for the Court, although naturally it will expect to derive some assistance in its task from the manner in which the Parties have attempted to interpret and fulfil the Award. But the whole purport of the Compromiso is that, the Parties having failed to interpret and fulfil the Award themselves, have now through the bringing into operation of the General Treaty of Arbitration of 1902 turned that task over to the Court. For these reasons the Court finds itself in general agreement with the

Argentine approach to the question of "interpretation and fulfilment". Whether, however, the boundary line contended for by Argentina is a "proper interpretation and fulfilment" of the 1902 Award is another matter, to be considered presently.

Having made these preliminary remarks on the nature of its task, the Court will now address itself to the main problem which is that of giving effect to the following words in the Award: "From the fixed point on the River Palena, the boundary shall follow the River Encuentro to the peak called Virgen . . ." The corresponding words in the Report are: "Crossing the Palena at this point, opposite the junction of the River Encuentro, it shall then follow the Encuentro along the course of its western branch to its source on the western slopes of Cerro Virgen." The corresponding situation on the Award Map is that the boundary line, after crossing the Palena (Carrenleufú), follows a river called the Encuentro in a general southerly direction. That river, and consequently the boundary line, finally turns eastwards on the Map towards Cerro de la Virgen.

It is agreed between the Parties that there is no difficulty in determining the boundary between Boundary Post 16 and the Confluence. In any case the Court has already decided that this stretch has been settled by the 1902 Award and the 1903 demarcation. The problem begins at the Confluence when it becomes necessary to decide whether the boundary shall follow the watercourse (the Southern Channel) called the Encuentro by Argentina (but composed principally of the Arroyo López and the Arroyo Mallines, according to Chile); or whether it shall follow the river called the Encuentro by Chile (but called the Río Falso Engaño by Argentina) — in other words, the Eastern Channel.

Argentina puts forward a number of reasons why the boundary should follow the river which it calls the Encuentro. She relies chiefly on evidence derived from the development of river nomenclature in the area since 1903; on the physical characteristics of the Southern Channel; and on its lineal continuity with the Encuentro trunk stream, maintaining that "Considerations of length and volume are to be regarded as subordinate to that of lineal continuity. . . ." (Argentine Supplementary Volume of Additional Documents, Annex No. 63, p. 12.)

Argentina also relies on the Strahler method of designating stream order: "Only one completely objective method of determining the order of importance of a river exists, that of Strahler." (*Op. cit.*, p. 11.)

Chile, on the other hand, identifies the Eastern Channel with the Encuentro on grounds of greater age, greater volume of discharge, greater length, and greater height of origin, and because she estimates that near the Confluence its gradient is less than that of the Southern Channel. These arguments, particularly length and volume, she maintains, demonstrate scientifically that the Eastern Channel is the major channel and the master stream in the drainage basin of this area, a conclusion which she considers to be supported by the Horton system of stream order analysis.

In assessing these contrasting arguments it must be borne in mind that the river which became the Encuentro as the result of the 1903 demarcation is not the river which the Arbitrator had in contemplation when he pronounced the Award; that it is not the river shown on the Award Map; that the river now known as the Encuentro, although it appears to be shown on the Award Map, is not named thereon; and that the course of that river, though in parts inaccurately depicted on that Map, is shown as having two channels. Nevertheless, there is no doubt that, as a result of what happened in 1903, the river opposite Boundary Post 16 is the Encuentro and has to be

understood as such for the purpose of interpreting and fulfilling the Award.

In the view of the Court two principles must dominate its approach to the problem now before it. The first is the general principle that where an instrument (for example, a treaty or an award) has laid down that a boundary must follow a river, and that river divides into two or more channels, and nothing is specified in that instrument as to which channel the boundary shall follow, the boundary must normally follow the major channel. The question which is the major channel is a geographical question to be referred to in a moment.

The second principle governing the Court in its approach to the problem now before it is that, whichever channel is followed — and this must normally be the major channel — the Court must never lose sight of the fact that it was the intention of the Arbitrator to make the boundary follow a river as far as Cerro de la Virgen.

Both Parties, relying on the words in the Report “follow the Encuentro along the course of its western branch to its source on the western slopes of Cerro Virgen”, have argued that, once it has been decided which Encuentro to follow, the boundary must go to the source of that river. The sources are of course put in very different places by the Parties depending upon which channel they would have the Court follow. Thus Argentina, relying on the identification by the Mixed Boundary Commission, puts the source of the Encuentro just north of Portezuelo de las Raíces. Chile, on the other hand, puts its source on the western slopes of Pico Virgen.

In the view of the Court, however, the notion of following the Encuentro to its source is inextricably bound up with the erroneous idea that that river has a western branch the source of which is on the western slopes of Cerro de la Virgen: whereas, in fact, wherever the source of the Encuentro may be, it is certainly not there. The river which has its source on the western slopes of Cerro de la Virgen is not the Encuentro but the Salto/Azul or a tributary thereof (see Part II, above). Given this error, and given also the fact that the reference in the Report of the Tribunal of 1902 to the “western branch” of the Encuentro is in reality a reference to the Salto and not to the Encuentro, it is not possible to give effect to these words in that Report. Rather the proper interpretation is to concentrate on the simple, straightforward words in the Award “follow the River Encuentro to the peak called Virgen”. The problem then becomes one of determining the major channel and following that channel unless and until it begins to deviate in a marked degree from the direction of Cerro de la Virgen, at which point the line must leave the Encuentro altogether and make for Cerro de la Virgen in a manner as far as possible consistent with the general practice of the Award.

In the Court's opinion, the major channel can be determined on both historical and scientific grounds. Tradition dictates the names of rivers, and sound evidence of traditional nomenclature — indigenous names or names given by first discoverers — would be decisive. In this respect historical evidence is lacking. No one knows the Indian names of any of the rivers in the Encuentro system nor what names, if any, were given by their unknown first discoverers, except for the name “Encuentro” itself applied by Steffen in 1894 to the lowest reaches of that river. On the Award Map, the two branches of the river which may — though it is not certain — represent the actual Encuentro, are both unnamed.

There is, however, other historical evidence dating from within 10 years of the Award and demarcation which, if it does not actually name the major channel, helps to identify it. The first evidence is a passage, illustrated by

a map, both dated 1907, published in Volume I of "The Argentine-Chilean Frontier — General Demarcation 1894-1906" (Office of International Boundaries, Buenos Aires, 1908). An extract from pages 228 to 235 of this Volume was filed by Chile in Annex No. 31 to her Memorial. The passage comes from a report by Señor Luis A. Alvarez, Engineer of the Argentine Boundaries Office, to the Superintendent of Boundaries in Buenos Aires, Señor Zacharías Sánchez. Alvarez was responsible for surveying the country in the vicinity of Boundary Post 16 and his map accompanying the report (CH. 18) is the first reasonably reliable representation of the Encuentro River system. This map shows the Encuentro referred to in the 1902 Award joining the Carrenleufú (Palena) west of Boundary Post 16. It shows that Post opposite the actual Encuentro, which has two channels, the eastern one of which is shown flowing from the vicinity of Cerro Herrero. Alvarez in his report writes: "The red line on the sketch indicates that Award, whilst it can be seen that the stream where the post was erected has its sources close to Herrero hill." In 1907, therefore, four years after the demarcation, the Argentine surveyor responsible for the official survey of the district identified the Eastern Channel as the major channel.

The second piece of evidence is also of Argentine origin, Chile having carried out no explorations or survey in the area until the time of the Mixed Boundary Commission. This evidence is an extract from an official Memorandum from the Argentine Legation in Santiago to the Chilean Ministry of Foreign Affairs, dated 9 December 1913. Referring to Boundary Post 16, the Memorandum says: "This boundary post is not at the place indicated in the Arbitral Award, that is to say, opposite the mouth of the River Encuentro, but more to the East of this point, opposite the mouth of another different river which has its source in the vicinity of the Peak Herrero." This also identifies the Eastern Channel as the major channel.

These identifications of the major channel by reference to its source near Cerro Herrero are echoed in a document stated to be a copy of a report presented to the Argentine Minister for Foreign Affairs and Worship by the Technical Adviser to the Ministry, Engineer Señor Norberto B. Cobos, about 1941. Referring to the boundary line on the map signed by Captain Dickson and to the need for the boundary to follow the Encuentro from Post 16 to its sources on Cerro de la Virgen, Cobos writes, "Subsequent surveys and explorations (*i.e.*, since the 1903 demarcation) have proved that the sources of the River Encuentro are in Cerro Herrero." (Chilean Supplementary Volume of Additional Documents, R 171.)

That this recognition of the Eastern Channel as the major channel was correct can be confirmed on scientific grounds. In the Court's opinion the three principal criteria to be applied in a problem of this kind are length, size of drainage area, and discharge, preferably in terms of annual volume, though authorities differ as regards their relative importance (M. Roche, *Hydrologie de surface*, Paris, 1963, p. 152; Stephen B. Jones, *Boundary-Making*, Washington, 1945, pp. 129-130). These factors are moreover basic to the two American methods of designating stream order; the Horton method applied by Chile, and the Strahler method applied by Argentina. According to the Horton method, stream order is related to number of streams, channel length and drainage area by simple geometrical relationships. As regards the Strahler method, which Argentina considers the only objective method of determining the order of importance of a river, Strahler states: "Usefulness of the stream order system depends on the premise that, on the average, if a sufficiently large sample is treated, order number is directly proportional to size of contributing water-shed, to channel dimensions, and

to stream discharge in that place in the system" ("Quantitative Geomorphology of Drainage Basins and Channel Networks", in Ven Te Chow, *Handbook of Applied Hydrology*, 1964, section 4-43).

As regards length, the Eastern Channel from its principal source on the western slopes of Pico Virgen measures (taking a generalised length) approximately 21.2 kilometres, whereas the Southern Channel from its source as defined by Argentina just north of Portezuelo de las Raíces measures only 8.5 kilometres.

As regards drainage area, measurement of the catchment basin of the Eastern Channel, which rises at a main water-parting at a height of some 1,300 metres, gives about 8,000 hectares as against about 5,300 hectares for the Southern Channel; an approximate ratio of 5:3 in favour of the Eastern Channel.

Argentina, while not accepting length, drainage area, and discharge as appropriate criteria, refers to the dimensions of the pre-Glacial Encuentro (see Part II, above) and to the subsequent changes in drainage pattern in defence of the shorter length and smaller drainage area of the Southern Channel. She states: "The River Encuentro was formerly approximately 36 kilometres long." (Counter-Memorial, Vol. I, p. 60.) These considerations, true as they may be, are not, in the Court's view, relevant to the problem of the relative order of importance of the two watercourse as they were in, and have been since, 1902. There is no evidence or claim that there has been any significant change since that date.

Whether or not the Southern Channel is a relic of a much larger pre-Glacial Encuentro, as Argentina alleges, the important point is that it has, since 1902 and for a long time before that, been in terms of length and drainage area a much smaller watercourse than the Eastern Channel.

Discharge, of which only Chile has submitted any measurements, poses a more difficult problem, these measurements being inadequate as a basis for calculating annual volume. Many of these measurements, moreover, were taken at midsummer when heavy rain during snow-melt can cause the Eastern Channel to rise more rapidly. Other measurements, however, taken in March, April and May 1966 during a dry autumn when snow-melt was negligible, give a ratio of 2:1 approximately in favour of the Eastern Channel. These measurements taken in conjunction with those of length and drainage area (which together give an indication of volume) and considerations of climate, precipitation, and altitude (Chilean Supplementary Volume of Additional Documents, R3 and R4), provide, in the Court's opinion, a reliable indication that the Eastern Channel has the greater volume. This accords with the visual observations of the Field Mission.

Chile adduces further arguments in favour of the Eastern Channel based on age, gradient, water-level, and nature of bed-load, none of which, in the Court's opinion, contribute significantly. Argentina lays much stress on lineal continuity of the Southern Channel with the trunk stream, and this can certainly be an important factor. Strahler places it on an equality with longest total stream length as a factor governing choice when continuing a single-channel profile headward into channels of lower order (Strahler, *op. cit.*, 4-56).

The Court considers, however, that the continuity referred to is primarily the continuity of the containing valley which is inherent in its geomorphological history. The Court attaches more importance to the continuity of the general force of the river with that of the trunk stream and regards this as more apparent in the case of the Eastern Channel.

The Court does not consider that the two different methods of stream order designation (applied as they are to maps of different degrees of accuracy and on different scales) help to resolve the problem. Chile, applying the Horton method (R.E. Horton, "Erosional Developments of Streams and their Drainage Basins", *Geol. Soc. Am. Bull.* v. 56, pp. 275-370), deduces that the Eastern Channel is the major channel, while Argentina, using the Strahler method, finds not that the Southern Channel is of a higher order but that both channels are of the same order. But the results obtained by both methods depend on the scale and accuracy of the map, and the maps used are inadequate for the purpose.

In view of the evidence strongly favouring the Eastern Channel as the major channel, it may seem superfluous to consider further the Southern Channel, a term used for convenient reference hitherto. The nature of this Southern Channel has, however, been a matter for considerable argument. Applying the same criteria as in the case of the major channel, the Court considers that the Southern Channel consists in the main of two water-courses; one, the Arroyo López, the principal stream, rising high up in the mountains to the south-east; the other, the Arroyo Mallines, a southern tributary of the Arroyo López.

The Arroyo Mallines does not rise just north of Portezuelo de las Raíces. Its principal source is on the western slopes of the Cordón de los Morros. The perennial streams and seepages feeding rivulets at the northern foot of Portezuelo de las Raíces appear to provide only a secondary and feeble flow of water.

On the basis of the historical and scientific evidence thus reviewed, the Court concludes that the Eastern Channel is the major channel; that is, the River Encuentro. The boundary line from the Confluence (Point A*) therefore follows the thalweg of this river to a point where the course of the river begins to deviate from the direction of Cerro de la Virgen, which is a natural boundary mark. This point is Point B, a point nearest to the local water-parting along this stretch of the river.

The general practice of the 1902 Award was for the boundary line to follow either the Continental Divide or local surface water-partings, crossing river tributaries as necessary. Applying this practice to the boundary between Point B and Cerro de la Virgen, the boundary ascends from Point B by way of a small lake to the local water-parting at Point C. From this point, the boundary line follows the local water-parting through Points D, E, and F to Point G on top of a hill just east of the River Engaño. From this point it crosses the River Engaño by a straight line to Point H. It continues by a straight line to Point I, on the water-parting north of Cerro de la Virgen. It then follows the local water-parting to Point J at Cerro de la Virgen.

For the reasons which have been given, the Court considers that the line which has just been described is, on the proper interpretation and fulfilment of the 1902 Award, the course of the boundary in those parts of the sector between Boundary Posts 16 and 17 which have remained unsettled since that Award.

* The location of Point A and subsequent Points is shown on the diagram and air photographs incorporated in this Report. The diagram is not intended as an authoritative map. It is only an index to the air photographs. These photographs are the sole authority for the exact location of the Points.

PART VI

The Court, having reached its conclusions in accordance with the principles of international law, decides that the Question put to it in Article I (1) of the Compromiso is to be answered by stating that the course of the boundary between the territories of the Parties in the sector between Boundary Posts 16 and 17 is as follows:

From Boundary Post 16 on the north bank of the River Palena the boundary shall cross the Palena to the mouth of the River Encuentro. It shall then follow the thalweg of the Encuentro to Point A* at the Confluence. The boundary shall then turn eastwards and follow the thalweg of the Encuentro for about 16 kilometres to Point B. The line shall then turn westwards and ascend by way of a small lake to the local water-parting at Point C. Thence it shall turn south and follow the local water-parting for about 2 kilometres to Point D. The boundary shall then turn west and follow the local water-parting for about 6 kilometres to Point E on the hills sometimes known as Cordón de los Morros. Turning south it shall follow the local water-parting for about 2 kilometres to Point F. It shall then turn west along the local water-parting to Point G on top of a hill just east of the River Engaño. The boundary shall proceed by a straight line to Point H on a low hill west of the River Engaño, and thence by a straight line to Point I, on the water-parting north of Cerro de la Virgen. Turning southwards, it shall follow the local water-parting to Point J at Cerro de la Virgen. The boundary shall then follow the local water-parting southwards to the northern shore of Lake General Paz at Boundary Post 17.

London,
24 November, 1966.

McNAIR
President

L. P. KIRWAN

K. M. PAPWORTH

David H. N. JOHNSON
Registrar

DIAGRAM OF THE SECTOR BETWEEN B.P. 16 AND B.P. 17

REFERENCE

Existing Boundary Posts

B.P. 16, B.P. 17

1966 Report Line

Key points shown in air
photographs

All weather roads

Lines claimed by the Parties

(a) by Argentina

(b) by Chile

