translation of Commandant Benoit's eulogy for Cholesky

Andre-Louis Cholesky, born 15 October, 1875, in Montguyon (Charente-Inferieure), entered l'Ecole Polytechnique at the age of 20 and, upon graduation, went into the artillery branch. Attached to the Geodesic Section of the Geographic Service, in June 1905, he made himself noticed at once by extraordinary intelligence, a great facility for mathematical work, an inquiring spirit, original ideas, sometimes even paradoxical, but always marked by a great dignity of sentiment which he maintained with great conviction.

That was the period when the revision of the French triangulation had just been decided in order to continue the revision of the meridian line of Paris, to be used as the base of a new cadastral triangulation. The problem of the adjustment of the grid preoccupied many officers of the Section, who wished to contribute to fixing, in the sense of speed, convenience and maximal precision, methods which were not yet entirely agreed on. Cholesky approached this problem, bringing in his solutions, as in everything he did, a marked originality. He invented, for the solution of the condition equations in the method of least squares, a very ingenious computational procedure which immediately proved extremely useful, and which most assuredly would have great benefits for all geodesists, if it were published some day.**

In the midst of all this, there appeared the question of the map of Crete, then occupied by international troops. After a proposal of Colonel Lubanski, commanding office of the French troops in Crete, a former geodesist, and, also, a rapid reconnaissance made in March-April 1906 by Lieutenant Colonel Bourgeois, then Chief of the Geodesic Section, it had been decided that the French Geographic Service would undertake the triangulation of the French and British sectors of the island of Crete (Departments of San Nicolo and Candie), and the topographical survey of the French sector.

Three officers, of whom Major Lallemand, Chief of the mission, and Lieutenant Cholesky, who had left France in November 1907, proceeded in three months to the fundamental operations: measurement of a base (in the Kavousi plain), determination of an astronomical latitude and azimuth at the southern end. Then, Cholesky, alone, remained to execute the triangulation.

The reconnaissance and the construction of the markers were pursued in mid-winter. If one reflects that Crete, whose breadth is scarcely 40

kilometers, is covered with mountains whose altitude occasionally exceeds 2400 meters, one appreciates how particularly hard the operations were. At the summit of the Lassithi heights, the water necessary for the detachment was still furnished at the end of May by the melting of enormous drifts of snow. Nevertheless, surmounting all the obstacles, Cholesky succeeded in finishing the work on 15 June, 1908. Unfortunately, the political circumstances did not ultimately permit the sending of topographers to Crete to execute the surveys.

Afterwards, the geodesic activity of Cholesky underwent an interruption of two years (September 1909 to September 1911), because of the obligation where he found himself carrying-out his tour of duty as Battery Commander.

Sometime after his return to the Section, he was sent to Algiers to take direction of the precision levelling of Algeria and Tunisia, executed by the Geodesic Section on behalf of the Governor General of Algeria, and that of the Regency of Tunis.

In his new functions, Cholesky brought the ardor he applied to everything. One discerns it from reading the "Report on the Operations of the Precision Levelling of Algeria and Tunisia during the Campaigns 1910-11, 1911-12, 1912-13."1

The primary Tunisian grid was finished in the field in the winter 1913-1914. Immediately, all the calculations were reviewed, organized, the grid was checked and adjusted. The publication which will be made will be the result of this effort.

At the same time, for the problem of levelling in Morocco, under somewhat peculiar conditions, Cholesky sought to fit the means to the purpose, and determined the methods to be used.

In May 1913, Cholesky was assigned to the Ministry of Foreign Affairs, and put in charge of a vast service, the Topographical Service of the Regency of Tunis. He hardly had time to show the measure of what he would have been able to do there. In effect, the war broke out shortly thereafter.

During the campaign, he was one of the officers who best understood and developed the role of geodesy and topography in the organization of artillery firing. In October 1916, his technical qualities resulted in his being sent on a mission with the Geographical Service of the Romanian Army. He returned in February 1918, having rendered distinguished service there.

Five months afterward, on 31 August 1918, two months before his comrade Levesque, also the commander of an artillery group, he fell for his country, a sad and irretrievable loss for Geodesy.

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* This notice appeared in the "Bulletin geodesque" entitled "Union geodesique et geophysique internationale, Premiere Assemble Generale, Rome, May 1922", Section de Geodesie, Toulouse, Privat, 1922, no.8, pp. 159-161.

Translation by Richard W. Cottle, with the assistance of Eduardo Aguado.

**Translators note: The method was subsequently published by Commandant (=Major) Benoit, Note sure une methode de resolution des equation mormales provenant de l'application de la methode des moindres carres a un systeme e'equations lineaires en nombre inferieure a celuides inconnues. Application de la methode a la resolution d'un systeme defini d'equations lineaires. (Procede du Commandant Cholesky.), "Bulletin geodesique," 7:1 (1924), 67-77.

1 Cahiers du Service geographique de l'Armee, no. 35, Paris ("Imprimerie du Service geographique de l'Armee), 1913, 36 p.

2 See Rapport sur les travaux executes en 1912, Cahiers du Service geographique de L'Armee, no. 36, Paris (Imprimerie du Service geographique de l'Armee) 1913, 90 p., 15 pl., pp. 4-17.