

FIFTY YEARS AGO

Capitão Tenente F. FROTA, of the Brazilian Navy, commented on the use and future of Aerial Photography in an article published in *The Hydrographic Review*, Vol. XV, No. 2, November 1938, from which is extracted the following:

THE USE OF AERIAL PHOTOGRAPHY IN THE HYDROGRAPHIC SERVICE

by Capitão Tenente F. FROTA

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'Aerial photography has revolutionized hydrographic methods by surveying 150 kilometres of coastline per hour without the least obligation to take into account either its accessibility or inaccessibility and with greater faithfulness and the same wealth of detail whether on the most unprotected coast of the ocean, in the calm interior of a bay, or along the bank of a river.

'Aerial photography supplies directly an abundant number of ground marks of sufficiently accurate position, thus greatly curtailing the duration of the sounding operations. The photographed coast offers such a degree of accuracy and detail that soundings by simple alignments and direct reference to the shoreline are greatly increased in practice.

'Often the photograph itself indicates the existence of submerged shoals and reefs — colour, breakers and current movements being the chief elements of indication. The contours of shallow banks are well-defined. It was never our intention to apply aerial photography to this kind of investigation, for which special conditions of light, sea and wind are required, besides the choice of the most favourable times; but the photograph published in No. III of these *Annaes*, illustrating the description of Professor Emilio WOLF's 'Stereograph', when compared with chart 1501 — *Cabo Frio* — shows the possibility of perceiving the gradation of tints for depths down to 8 metres.

'It is unfortunately impossible, as is often demanded by those unfamiliar with surveying, to deduce from the photographs any concrete value as to the depth. However, this does not exclude that science may one day lead us to this result, which is of such incalculable importance for hydrography.'

