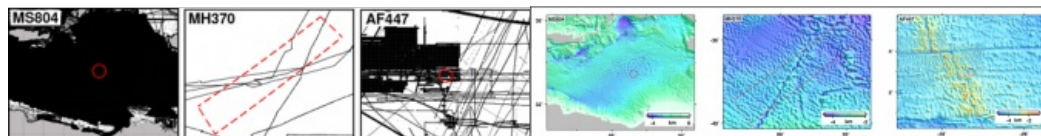
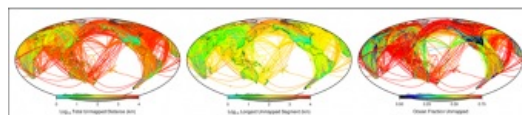


Unsurveyed Oceans Linked to Over-ocean Flights



A big part of the oceans is still unmapped, which is why efforts are undertaken to reduce the amount of 'blank' areas in the ocean from the perspective of available data. Walter H.F. Smith, Karen M. Marks and Thierry Schmitt have calculated that 60% of all unique overseas flight routes travel over unmapped areas, and the quality of the areas that are mapped varies widely.



This lack of quality shows when an aircraft is missing as this hinders searches. At the time that Flight MH370 went missing, only 5% of the southeast Indian Ocean seafloor had been surveyed. Between the disappearance of the aircraft, an additional 120,000 square kilometres were surveyed, being roughly 1/3 of the area. To put this in perspective: 86% of the eastern Mediterranean seafloor was mapped in the region where EgyptAir flight MS804 crashed in 2016. At the place where AF447 came down in the Atlantic Ocean near Brazil, 30% was surveyed.

Crossing Unmapped Oceans

The [researchers have calculated](#) the stretch of flights over unmapped oceans using route data from [OpenFlights](#) on GitHub. They constructed routes and made an inventory of the routes leading over unmapped oceans. On most routes, more than half of the over-ocean portion is over unmapped ocean – and half of the flights go over more than 200km of unmapped ocean. Of the total calculated route distance of 33.3 million kms was 33% over oceans of which 60% of the over-ocean distance leads total over unmapped oceans.

The researchers state that a basic hydrographic mapping effort would require 200 shipyears as an effort, meaning a cost of about USD2-3 billion.