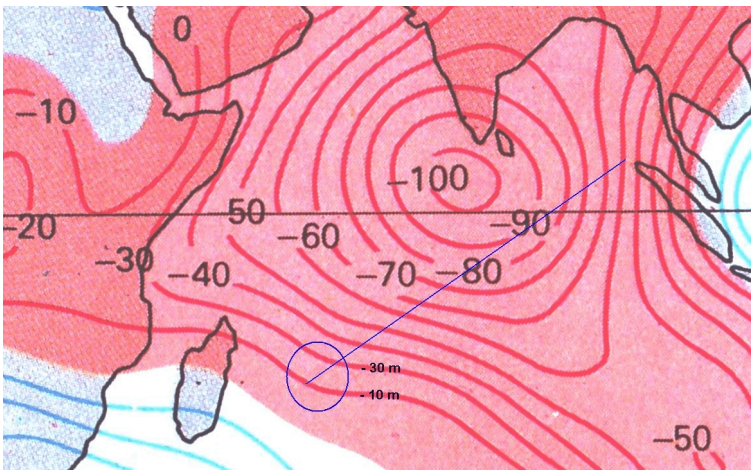
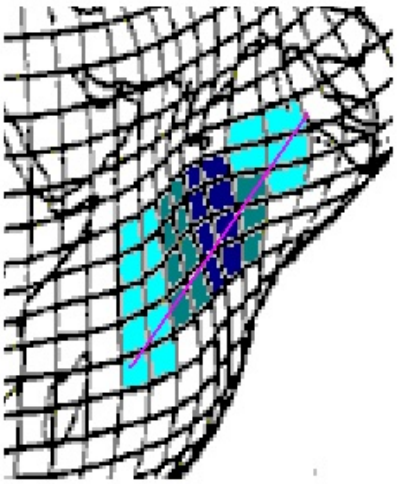
Some items here that may be of some interest, although principally nothing new to the case.

Radio range / line-of-sight comms.

In that particular area, looking from the island towards NE, the earth is not evenly shaped, but has a considerable inward dent. The difference between the island and a location to the SW of SriLanka is about 90 metres, which is the max. indent in that part of the globe.

For an a/c approaching the island from the NE, the significant 'drop' of the horizon would be about 20 metres. In other words, to a given ground station antenna height, about 20 metres can be added. As a consequence of this, an a/c in that area may actually be lower than calculated by standard formulae, and still be in line-of-sight with a station on MRU.





Baggage / Load sheet

As an acquaintance of mine told me in 1988, his (Japanese) shipping company had 30 people flying to MRU / P.L. as relieve crew for their fishing vessels. I still have to look for the relevant letters, hope to dig them up some day. As per agreement with IATA, sailors have different conditions when flying (economy only), among which is a free baggage allowance (checked-in) of 30 kg. So, these 30 crew could have up to 900 kg of checked-in baggage destined for MRU. The load sheet list 13 pcs @ 300 kg.

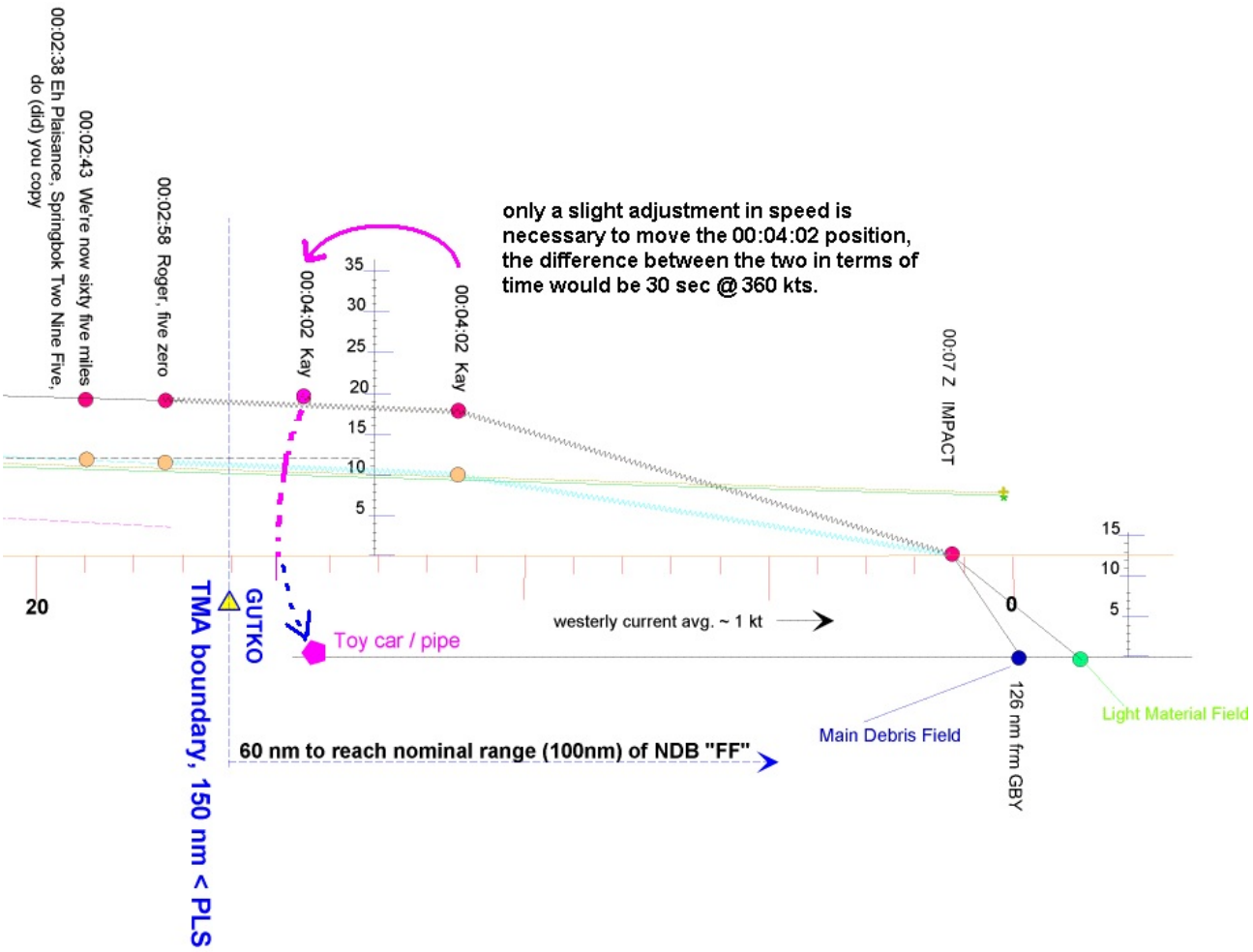
Debris fields

Looking over the diagrams of the debris fields, I found it rather difficult to make something out of it, due to the small size. Only the SW field diagram could be manipulated in such a way as to become 'readable'. A worked-over version is attached. Do you have any idea where the CVR was found? Is this location marked anywhere on the diagrams?

In last year's accident here, the CVR and the FDR of a 737 were found 1.400 metres apart in about 2.000 m water depth. Sea currents in that area up to 3 kts.

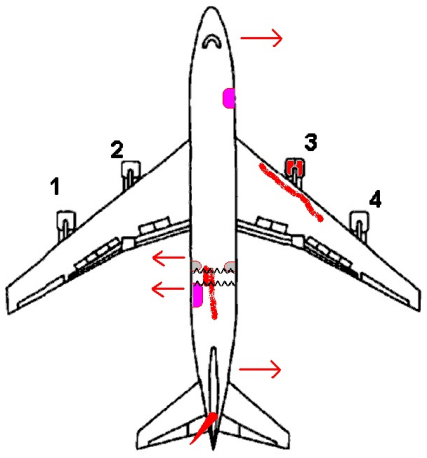
Considering the distribution of debris, it appears plausible that, 1. the plane broke in half shortly before impact, 2. the impact of at least the forward part, (from door 4 forward) happened sideways, starboard side first. Engine and landing gear almost one on top of the other (SW debris field).

After reading through reports covering TWA800, PA103, AI182, UA811, where it is argued that, the starboard forward lower cargo door opened in flight, I am becoming more and more convinced that, this happened here also. The locking mechanism activated either by faulty wiring plus water; its was raining, foggy at CKS, tarpaulin over pallet; certainly a high relative humidity, which later dripped as condensate on wires into the bilge; or the electrical system, damaged by the fire going wild for a few seconds before going dead.
"We have lost all electrics…", although there must have been some power available until 00:04:02 Z (Kay), and at that time the door could have burst open.



The consequence of such an explosive decompression would be:
the cargo door or parts of it detach, followed by parts of a cargo pallet or cargo, and damage engine No.3, loss of power on the starboard side;
possible damage to the leading edge of wing, loss of lift on the starboard side,
a/c turning and roll to starboard, right wing down, pipe(s) from engine No.3 ripped off,
rupture of fuel pipes, hydraulic pipes, loss of fuel, hydraulic fluid.

Assuming he was flying manually, an almost instinctive counter action, rudder (full) left, would put considerable additional stress on the hull, structurally weakened by doors 4 L & R, plus the cargo door just aft of door 4 L. Add to that any material fatigue caused by the fire, and additional stress due to the shock wave(s) caused by an explosive decompression, plus turning, rolling a/c, then a break-up looks inevitable.



The average speed from that point (00:04:02 Z) until impact about 14 nm further on would be about 270 kts.

In the cases of TWA800, PA103, AI182, there are two distinct debris fields (except UA811 which landed safely), indicating a mid-air break-up.

All cases had engine no.3 (next to the forward cargo door starboard side) damaged or detached from the wing. In the case of the Hldrbrg the fourth engine or parts thereof (presumably no.3) could not be identified (Report of engine manufacturer).

SW Debris Field