

Is Your Plan B Ready?

In 1851, Herman Melville's descriptions of square rigged sailing vessels struggling against the many hardships of sailing into a head wind in his novel *Moby Dick* remind the reader that things don't always go to plan, a sentiment reiterated by both writers and politicians many times over in the decades since. George Bernard Shaw (1921) in *Back to Methuselah*, suggested more bluntly, that 'life is not meant to be easy', an opinion that was to be infamously echoed by former Australian Prime Minister, Malcolm Frazer, many years later.

Perhaps 'Life wasn't meant to be easy' might be considered as an alternative motto for the hydrographic profession, which I was always told was 'No day too long, no task too arduous.' Every survey can be threatened by a multitude of challenges, many of which we have little or no control over. Successful surveys require the effective management of many variables, including the impact of the environment, equipment performance, personnel, logistics and approvals to conduct the work.

With over 30 years of experience, my 'appreciation' of these challenges continues to develop. While ALB (Airborne Lidar Bathymetry) provides many benefits such as the ability to quickly survey large areas of shallow-water and coastlines, remote areas and areas dangerous to survey by vessel, the elements requiring consideration have correspondingly expanded.

ALB is critically dependent on water clarity, which in turn is influenced by wind speed and direction, sea state and its impact on seabed type, spring and neap tides, flood and ebb streams, seasonal changes in water temperature, runoff from rivers and the impact of human activities such as dredging.

Whilst the benefits of an aerial platform are considerable, it nonetheless introduces further layers of complexity where not only sea conditions, but also factors that affect aviation including the height of the cloud base, proximity of high ground and towers, turbulence, air traffic near the survey area and avoiding restricted areas, must be taken into consideration. The upside, however, is that if conditions are not suitable in one part of the survey area it is relatively straightforward to move to an area with more suitable conditions.

This said, it now brings me to the crux of this article. Every activity needs a Plan B. There is no benefit in moving to a more suitable survey area if that area has not already been pre-planned as an alternative. This means the flight lines need to be planned and carried in the aircraft, while the flight plan for the sortie have included this area as an alternative with Air Traffic Control approval.

Without a well thought out Plan B, sorties may well return to base empty handed.

I have always tried to encourage the philosophy that flight crews carry every unsurveyed line left in the database on every sortie, and so have a hierarchy of fallback options in the event of unsuitable conditions in the primary and other areas.

Different survey techniques may require different approaches, however, I think the maxim of having a viable Plan B, and Plan C if necessary, is true for almost every endeavour. The challenge remains to ensure that this standpoint becomes the norm.

As Capt. S.T.S Lecky asserted in his *Explanatory to The Danger Angle and Offshore Distance Table* first published in 1882, these notions are 'intended to be read, remembered, and acted upon.'