

Ian Debenham: 16 December 2022

THE BOILER HOUSE EXHIBITIONS – THE CATALINA ‘FRIGATE BIRD II’.

With the Vickers Vimy aircraft of Sir Ross and Keith Smith, Sir Charles Kingsford Smith’s the ‘Southern Cross’, and Bert Hinkler’s Avro Avian, the Catalina ‘Frigate Bird II’ is one the most historically significant aircraft preserved in any museum collection in Australia. Sydney will lose ‘Frigate Bird II’ to an unknown location to allow for the refurbishment of the Boiler House in the Powerhouse Museum, creating a major risk to the objects contained therein. With ‘Frigate Bird II’ will go the rest of the objects in the *Transport* exhibition and the *Space* exhibition, although not necessarily to the same place.

According to an article in the *Sydney Morning Herald* by reporters Linda Morris and Carrie Fellner in the issue dated to June 28, 2020, the Powerhouse collections were to be dispersed throughout New South Wales to provide an alternate location until the Parramatta Powerhouse could be completed and the displaced objects returned to populate the Parramatta building. The ground has shifted the rationale for removing ‘Frigate Bird II’ and the rest of the Boiler House objects. As the two reporters of the *SMH* article of 2020 recognised, the conditions in the alternate locations would not necessarily be able to provide the best practice of environment found in the exhibition halls of the Powerhouse Museum in Ultimo.



‘Frigate Bird II’ commands attention in the still intact *Transport* exhibition, Powerhouse Museum, 18 June 2020

(Photo: Andrew Grant)

Aside from the risk of relocating ‘Frigate Bird II’, exposing it to damage through mishandling, the aircraft is also at risk from a less than museum-quality environment. Even lowering Frigate Bird II to its present position is a minor compromise to the environment where it was once spectacularly suspended above the exhibition floor. In 1987, the Museum’s conservators took temperature and humidity readings in the Boiler House that showed increasing temperature and decreasing humidity, the greater the elevation up to the trusses, 21 metres above the exhibition floor. When the Catalina was winched into position in May of that year, it had already been established that the proposed approximate 10-metre-high display height would be an ideal compromise

(45-55% relative humidity and 20-22 degrees C.) of these two critical diurnal measures of the exhibition environment.

As a manufacture of the wartime world 'Frigate Bird II' was conceived and built as a warplane with an expected short life span. It was never foreseen as lasting seventy-seven years. It was constructed primarily of an alloy of aluminium and copper, a specification designated 24ST. This specification in a more sophisticated form is now designated 2024T3 and used on current commercial aircraft. In mid to high humidities and in saline environments corrosion is a problem. A watch is kept on modern commercial aircraft for corrosion outbreaks and treated using modern methods. In the Boiler House at Ultimo 'Frigate Bird II' has been spared this problem due to the controlled environment in that space. Needless to say, out of that environment the aircraft is placed at risk.



After lowering almost to the newly polished concrete of the exhibition floor, the Catalina faces an uncertain future on 28 September 2022 (Photo: Andrew Grant)



'Frigate Bird II' as party centrepiece: The FBI Radio station event in the Boiler House, 10 November 2022 (Photo: Sam G. Eacott)

It is evident that, in 2020, no planning was put in place to find a safe storage location for 'Frigate Bird II' and, with the expressed need to restore the Boiler House roof the planning for a storage location for the aircraft has arisen. Three options have been explored: the first is with the Historical Aircraft Restoration Society Inc. (HARS) at Albion Park; the second is the Rathmines Catalina restoration group; the third is commercial hangarage at Bankstown Airport.

As a former licenced aircraft maintenance engineer, I am also the Honorary Secretary of HARS; I am well aware of the issues with maintaining aircraft generally and, as a regular attendee at the HARS Museum site at Shellharbour Airport, I am also aware of the shortcomings of this site that is only 2.25 km from the salt water of Haywards Bay. Corrosion is a continual concern for the maintenance of the metal aircraft in the HARS collection. As a number of the aircraft are maintained as airworthy they are regularly inspected for corrosion and problems are swiftly dealt with. Basically, HARS cannot provide a suitable display venue for 'Frigate Bird II' as the available hangarage is required to be flexible for the storage and maintenance of the HARS fleet with no fixed space able to be designated for a non-HARS aircraft despite the public interest that 'Frigate Bird II' would generate. The HARS aircraft hangars 1 and 3 are not climate controlled.

The Rathmines Catalina restoration group is located a short distance from Lake Macquarie, Australia's largest saltwater lagoon. There is no undercover storage available for 'Frigate Bird II' in their work area let alone environmentally controlled storage.

The last option considered by MAAS staff was the hire of a hangar at Bankstown Airport. Suitable hangarage on the airport of a size capable of storing 'Frigate Bird II' is not generally climate controlled. The issue of security of the premises would have to be carefully assessed to ensure that no unauthorised access to the facility was possible.

Storage on the airport would require the payment of a regular lease fee set at current commercial rates. It is suggested also that both HARS and the Rathmines group would also require a regular rental payment for the MAAS for the respective use of the HARS and Rathmines areas as volunteer organisations such as these rely on funding through sponsorship, donations and grants. The storage cost would add to that of the dismantling of the aircraft, the preparation for transport and storage, and transport to its ultimately selected storage location. To this costing must be added the cost and substantial risks of its return to display in the Powerhouse Museum if that is the Government's and the Museum management's ultimate goal for the aircraft.

Ian Debenham OAM, BA Hons., Dip. Mus. Stud., former Curator of Transport (Aviation and Maritime), Museum of Applied Arts and Sciences. Honorary Secretary of the Historical Aircraft Restoration Society Inc. and former President and current member of the Aviation Historical Society of Australia (NSW) Inc.
5 December 2022.