

Ground Running & Airfield Maintenance Noise at Perranporth Aerodrome Planning Report – Carrick District Council



During March 1924, the 330 acre spectacular cliff-top aerodrome at Perranporth - a 19th Century Cornish tin mining village - provided pleasure flights using an Avro 504 WW1 bi-plane. Since then, the aerodrome has accommodated several squadrons using aircraft ranging from Swordfish to Spitfires. Today, the aerodrome enjoys English Heritage protection of the airfield's defences and accommodates a number of activities, including pleasure flights.

AAD was selected by Carrick District Council to assist in the resolution of a planning matter concerning noise arising from maintenance activities including its ground running component. The matter arose because consent was granted during 2004 for a 2,100m² hanger building, restricting its use to aircraft storage and to a 336m² area to "pre-flight" maintenance. The purpose in restricting use was to address concern that noise from planned maintenance, in particular to nearby residential amenity, might be excessive.

Carrick Council received an application to vary the condition to include planned maintenance and its constituent ground running component. Experienced in matters including airfield noise emissions and mitigation, AAD's approach to the task was to acquire, process and interpret noise data. This included monitoring noise levels at two community locations continuously over the duration of one week; this data established the range of prevailing ambient and background noise levels and was subsequently used to inform the selection of a suitable noise control criterion.

Source noise data was acquired by ground running five aircraft types, with simultaneous measurements of noise made at nearby residential properties and around each aircraft for a series of pre-determined operating conditions. Finally, measurement of noise from tools and equipment used in the maintenance workshop was also made to support our subsequent analysis. We then created a topographical model (including roads, runways, buildings and screens) and based upon source noise measurement results then made calculations to predict noise levels arising from the proposal; these were compared with measurements made with the sources running and with noise levels normally prevailing in the area. Noise mitigation was subsequently identified, as were suggested conditions that could be attached to the grant of any planning permission. AAD attended the planning meeting to present an overview of the work completed and answered a number of questions. Subsequent voting was 11 in support of the application with 2 against.