Proposed Site & Management Plan for the New Operations Facility at Jersey Airport

TECHNICAL REPORT

Prepared by
International Services, UK Civil Aviation Authority

Presented to
Jersey Airport

Country
Jersey

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Civil Aviation Authority

UNITED KINGDOM

INTERNATIONAL SERVICES

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Report on the Proposed Site and Management Plan for the New Operations Facility at Jersey Airport

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Introduction

The International Services Department (IntSD) of the UK Civil Aviation Authority (UKCAA) was contracted by the Jersey Airport Director to provide a report on the acceptability of the proposed chosen site Option 8, (see ANNEX A) for the new Operations facility with the aim of ensuring that the proposed development would meet the requirements of Annex 14 and the guidelines contained within CAP 168. The Visual Control Room (VCR) will be constructed to a controller's eye level height of 118 ft AGL, so that controllers can see aircraft taxying, arriving and departing on both runways as well as a substantial part of the aircraft on stand. This is a fundamental safety requirement for the control of aircraft at an airport. In addition IntSD was also asked to comment on the requirements for Surface Movement Radar at Jersey.

The States of Jersey, although a Crown Dependency, is not regulated by the UKCAA Safety Regulation Group although it is the declared intention of Julian Green, the Jersey Airport Director that the airport should comply with the requirements of ICAO Annex 14 and CAP 168 wherever possible. If a development, such as the one proposed, were to be built on a UK licensed airport, as part of the licensing requirements, it would require several meetings with the nominated Aerodrome Inspector who would offer advice and guidance from the initial development meeting through the management plan to the completion of the building, in line with the guidance outlined in CAP 729. Furthermore, any pre-existing non-compliances in the vicinity of the development would have to be eliminated as part of the Aerodrome Standards Department approval process under Conditions contained within the Aerodrome Licence.

Current Situation

- The upper floors atop the 1937 building, the existing Operations Building which houses ATC and DoE, penetrates the 1:7 Transitional Slope, an International Standard designed to protect aircraft deviating from the runway centreline on arrival or departure, by a considerable margin; a situation, which would not be considered acceptable at a UK licensed airport. (see ANNEX B)
- Hangar 4, and old hangar adjacent to the Alpha taxiway, also penetrates the 1:7 Transitional Slope.
- The existing 1937 building prevents local alignment of the Alpha Taxiway at the correct distance from the runway centreline commensurate with Runway Code 3 requirements. Again, a situation that would need to be rectified at the first development opportunity.
- Although not part of licensing requirements, cognisance has to be taken of the Health and Safety requirements. The top 2 floors of the existing building are lined with dangerous asbestos, which is no longer acceptable within the workplace, and the primary building elements have deteriorated beyond economical repair.
- As with any ageing building, it is likely that the asbestos situation could result in the loss of continuity of the provision of ATC and electronics operations at Jersey. This would result in a serious reduction in capacity with no suitable alternative ATC facility available. It cannot be over-emphasised that this is likely to occur at any time and therefore there should be no further delays in the construction and commissioning of a new facility.

The Proposal Aims and Objectives

The Jersey Airport planning staff has considered several sites for the new building with the following objectives in mind:

- To eliminate the non-compliances against the requirements of ICAO Annex 14 and CAP 168 and meet current Health and Safety requirements.
- To provide a safe and efficient working environment for ATC and DoE operations with the minimum disruption to users, operators and staff.
- To provide an ATC facility to meet both the Zone and VCR requirements.
- To ensure value for money.

Option 8 has been selected for the development in a position to the East of the current Terminal building and Apron area.

Advantages and Disadvantages

The site proposed (known as Option 8) has the following advantages and disadvantages:

Advantages:

- It is compliant with any recommendations contained within Annex 14 or CAP 168 for such a development.
- It will enable the infringement to the 1:7 Transitional Slope to be eliminated once the building is complete and the existing building removed.
- It will enable Taxiway Alpha to be realigned in order to comply with the Runway centreline to Taxiway centreline requirements for a Code 3 runway.
- The building can be designated as 'landside' during the construction phase, thus ensuring minimum disruption to the normal operations at the airport.
- It will provide a safe and efficient working environment for ATC and DoE operations.
- There will be no major impact on the Instrument Procedures at the aerodrome.
- Removal of Hangar 4 will further improve visibility and remove an additional obstacle within the 1:7 Transitional Slope.

Disadvantages:

- Initially there will be some obscuration of the Echo and Alpha taxiways, which will be addressed once the upper floors of the 1937 building have been removed.
- If a second floor is built onto the existing terminal pier, there will be some minor obscuration of the North Apron stands that can be satisfactorily overcome by the use of CCTV and an appropriate management plan.
- The Taxiway to the freight apron will have to be realigned in order to construct the building, however, it is noted this taxiway is due for replacement due to age deterioration.
- The Obstacle Clearance Height (OCH) for the NDB/DME for Runway 27 will need to be increased by 10ft, in itself a minor issue.

Surface Movement Radar

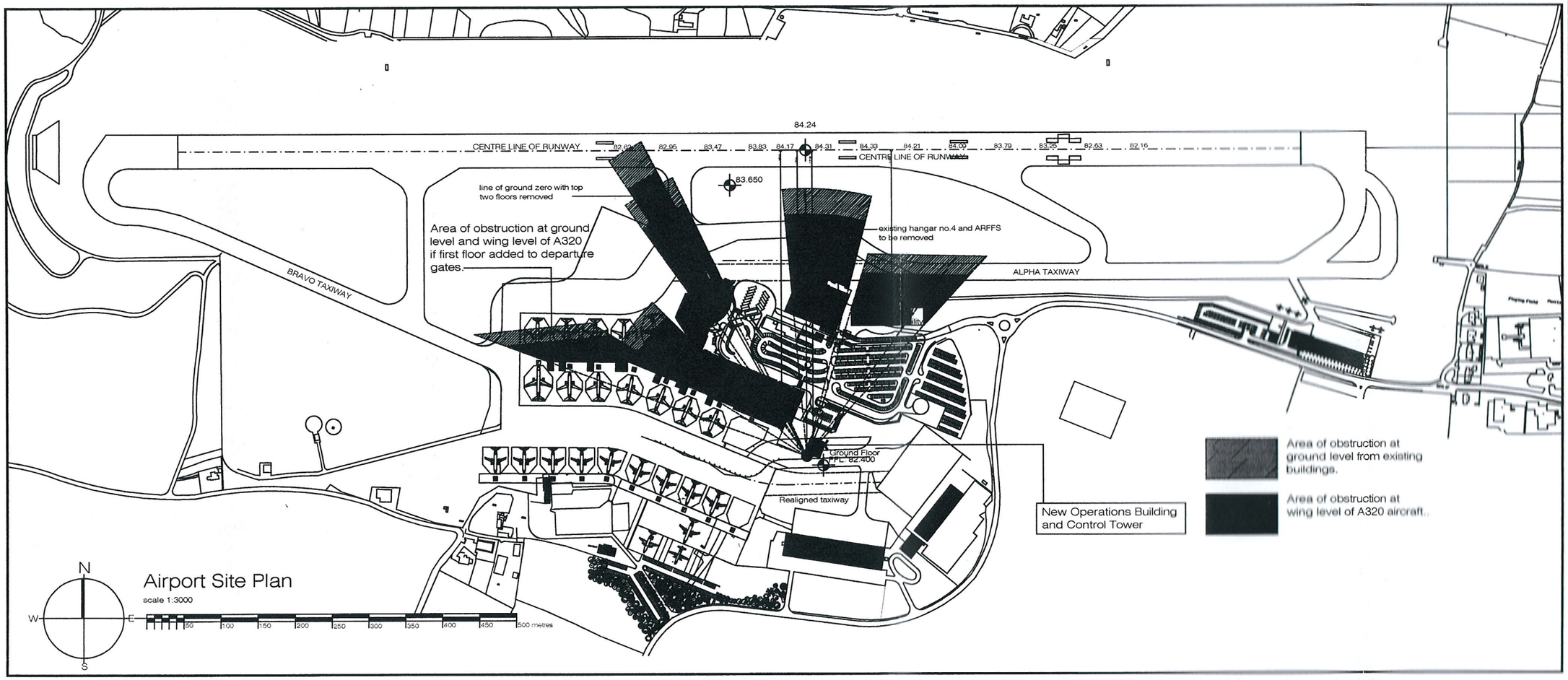
Given the current runway and taxiway layout at the aerodrome and the aircraft movement rate, Surface Movement Radar is seen on a cost benefit analysis, to be an unnecessary expense, which would be of little value in improving safety. Procedural measures for both aircraft and vehicular movements should be included in the Aerodrome and Air Traffic Control Safety Management System.

Conclusion

In summary there are many advantages and very few disadvantages in building the Operations facility on the site nominated as Option 8. In being able to be designated as 'landside' during the construction phase, many potential safety issues have instantly been eliminated. Undoubtedly once it is complete there will be obscuration in the short term, which can be overcome by sensible mitigation measures and a management plan, which must be implemented whilst the top stories of the existing building, and Hangar 4 are being removed. Robust stand management procedures and the use of CCTV could overcome any minor obscuration of aircraft on the North Apron, which may occur if a second level is put onto the terminal pier. In the longer term the removal of the 1:7 Transitional Slope infringement and the realignment of Taxiway Alpha to gain compliance with Annex 14 and CAP 168 requirements, will have many positive safety benefits. This development project will secure continuity of operations by removing the danger of asbestos and should act as the catalyst for Jersey to ensure that all its Safety Management Systems are re-assessed and amended where necessary.

Sandy Sawyer
Head of International Services
UKCAA

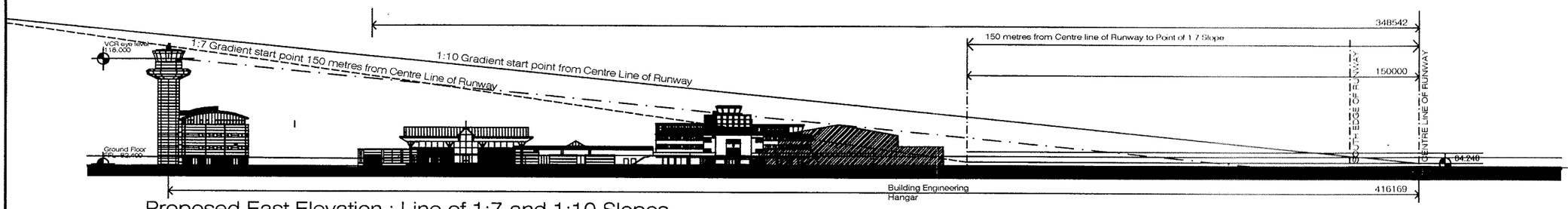
26 July 2006



Revisions

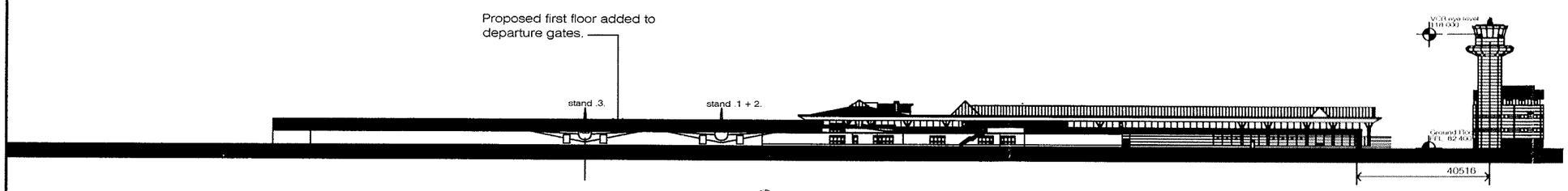
Rev	Description	Date
A	Proposed ARFFS & Engineering building added Adjustment to predicted sight lines relating to existing adminstration building	19/05/06

ANNEX A



Proposed East Elevation : Line of 1:7 and 1:10 Slopes

scale 1:750



South Elevation

ANNEX B

client
JERSEY AIRPORT

project
PROPOSED NEW OPERATIONS BUILDING & CONTROL TOWER LOCATION .8.

drawing
IIUSTRATION OF IMPACT OF 1:7 SLOPE ON CONTROL TOWER (STAND 14)

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scale	date	drawn
1:3000 1:750	MAY 2006	DGPeters

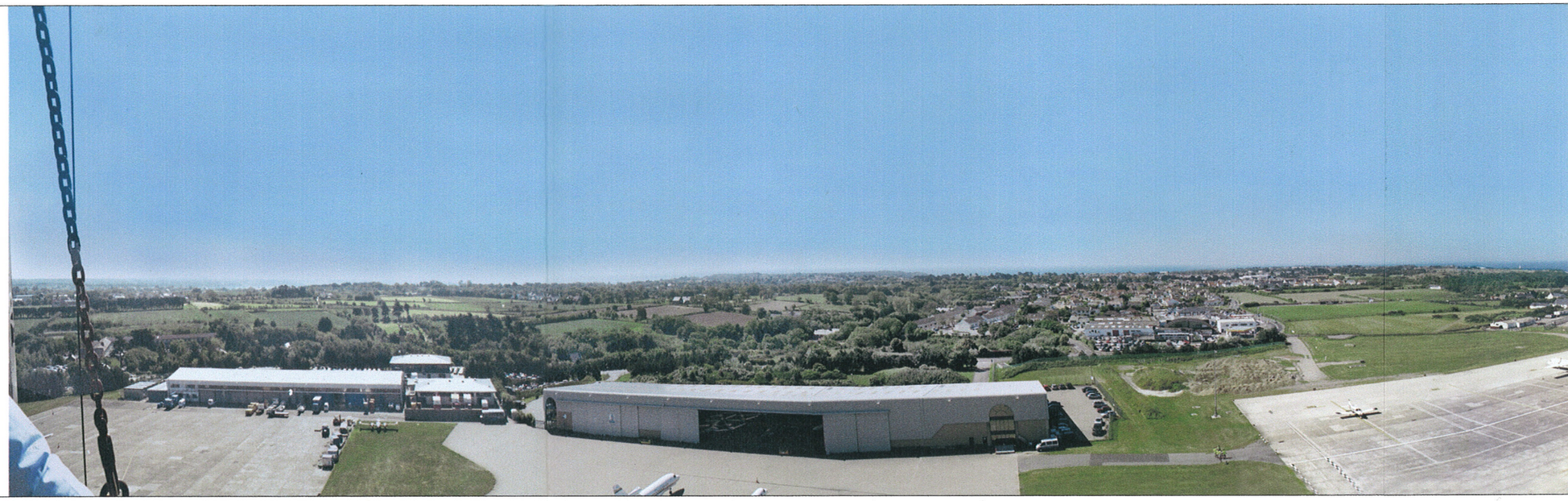
drawing no	revision
2948:14/132	A

Location 8.

Freight Taxiway
Centreline

Camera height 35.6 metres.

6th. June 2006



ANNEX C