Directorate of Airspace Policy

24 September 2009

REVIEW OF CHANGE TO NORWICH HOLDING PATTERN

1. Introduction

1.1 The Norwich Holding Pattern Change was implemented on 3 July 2008 (see Enclosure 1 for exemplar chart). This report assesses the impact of the changes, specifically the actual utilisation of the hold against predicted usage highlighted in the Consultation Document.

2. Background

2.1 Norwich International Airport submitted a request for amendment to the airport's instrument approach procedures; the change included relocation of the holding pattern and thus the proposal was subject to a formal Airspace Change Process in accordance with CAP 725. Norwich was required to amend their procedures pending the withdrawal the 'NH' NDB (end of in-service life - July 08), which supported the then holding pattern and procedures. Norwich's proposal was based on the use of their second NDB, the 'NWI', to support the approaches to the airport and the new holding pattern.

3. Assessment of the Change

3.1 As part of the ACP approval process Norwich was requested to maintain a record of any adverse comments made in regard to the holding pattern from airspace users and the general public - Norwich has not received any complaints. Norwich was also required to maintain a record of holding pattern usage as a measure of actual usage against the anticipated usage indicated on their Consultation Document (average 1.4 holds per day). They have maintained detailed monthly information for the period July 2008 – May 2009. This is summarised as follows:

Serial	**Data**
Period Of Assessment	332 Days
Total Period of Hold Usage	36 Hours 49 Minutes
Total Number of Holds	547
Average Numbers of Holds Per Day	1.6

4. Operator Feedback

4.1 Operator feedback indicates that there have been no operational difficulties associated with the use of the revised procedures.

INVESTOR IN PEOPLE

5. Conclusion

5.1 Although Norwich had little alternative but to change the position of the holding pattern, the lack of adverse comments supports their choice of location. Moreover, the actual hold utilisation, 1.6 holds per day, measured against predicted usage of 1.4 holds per day affirms the validity of the Norwich consultation assessment. In all, the Norwich ACP has delivered a successful change to procedures at Norwich and has caused little impact on both the local aviation and non-aviation community as a result.

Original signed

S Lindsey
Head of Controlled Airspace Section

Enclosure:

1. Exemplar Chart showing Norwich International Airport Holding Pattern.

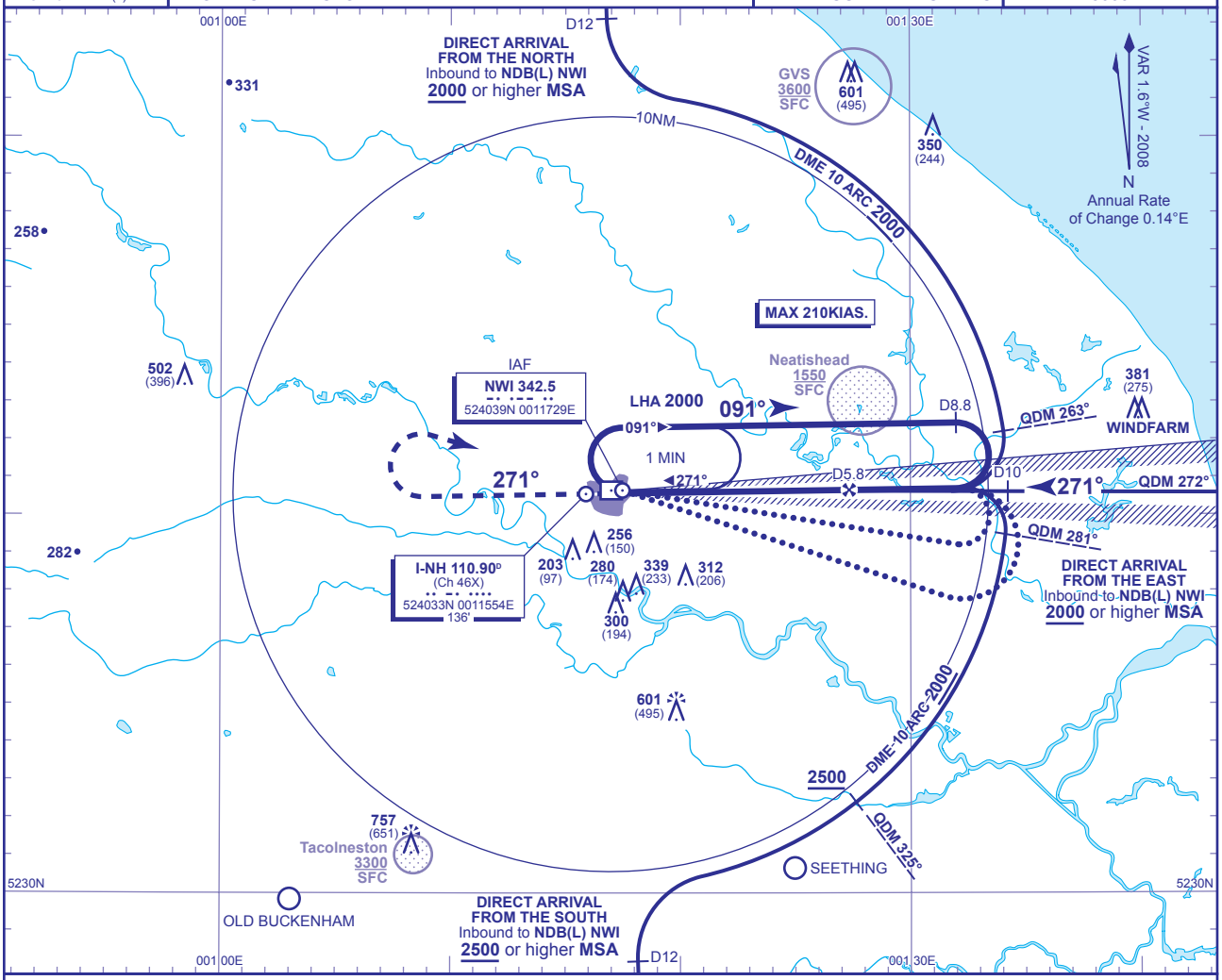
INSTRUMENT APPROACH CHART - ICAO

NORWICH ILS/DME/NDB(L) RWY 27

(ACFT CAT A,B,C,D)

MSA 25NM NDB(L) NWI	APP	119.350	NORWICH APPROACH	AD ELEVATION	117
	TWR	124.250	NORWICH TOWER	THR ELEVATION	106
	RAD	119.350, 128.325*	NORWICH RADAR	OBSTACLE ELEVATIONS	
	ATIS	128.625	NORWICH INFORMATION	757 AMSL (651) (ABOVE THR)	
	* NORWICH DIRECTOR			BEARINGS ARE MAGNETIC	

TRANSITION ALTITUDE **3000**

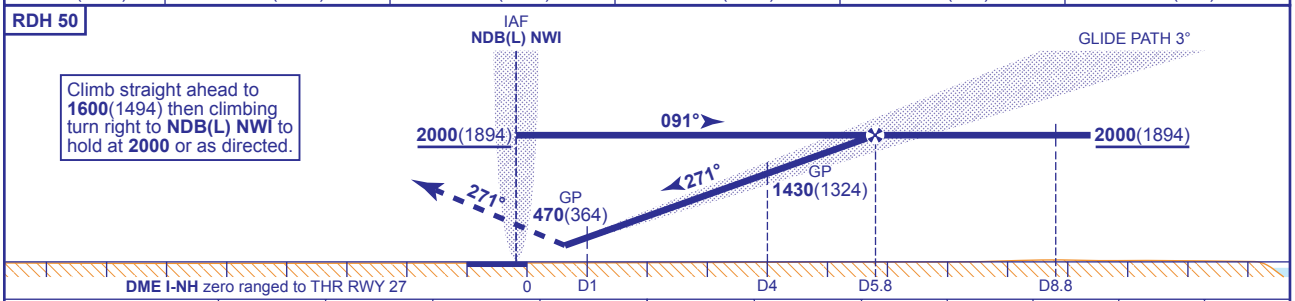


RECOMMENDED PROFILE GLIDE PATH 3°, 320FT/NM

DME I-NH	5	4	3	2	1
ALT(HGT)	**1750**(1644)	**1430**(1324)	**1110**(1004)	**790**(684)	**470**(364)

RDH 50

Climb straight ahead to **1600**(1494) then climbing turn right to **NDB(L) NWI** to hold at **2000** or as directed.



Aircraft Category		A	B	C	D
OCA (OCH)	CAT I	**256**(150)	**264**(158)	**275**(169)	**287**(181)
VM(C)OCA (OCH AAL)	Total Area	**610**(493)	**610**(493)	**740**(623)	**810**(693)

Rate of descent					
G/S KT	160	140	120	100	80
FT/MIN	850	740	640	530	420

ALTERNATIVE PROCEDURE
Overhead NDB(L) NWI fly outbound on QDR 101° (CAT A,B); QDR 110° (CAT C,D) maintaining **2000**(1894). At I-NH DME 8.8 turn left to intercept LOC. When established, proceed as for main procedure.

NOTE 1 All inbound aircraft should contact Norwich at least 10 MIN before ETA.
2 ATC will normally require aircraft to hold not lower than **3000** or equivalent FL.
3 Direct arrivals are subject to ATC approval and not available without DME I-NH.

CHANGE: PROCEDURE. MAG VAR.

AERO INFO DATE 16 APR 08