# E Test Frames for Flight Plan Validation

### E.1 Introduction

The test frames presented in this appendix satisfy term coverage for the following requirement:

if not Correct Form then report error.

Base test frames are presented in Section E.2. Differentiated versions of these test frames are presented in Section E.3.

# E.2 Base Test Frames

### --Test Frame 1.1:

	Frame 1.1:	
ROIDs		n.
Stim		Response
	NOT The flight is along a designated ATS route	1. report
2.	$\{ ext{point}\}$ is listed in Item 15 C	error
3.	NOT (A significant point code designator has been assigned to $\{ point \}$ )	
4.	NOT (2 figures describing latitude in degrees followed by $\{S\}$ followed by 3 figures describing longitude in degrees followed by $\{W\}$ is associated with $\{\text{point}\}$ )	
5.	NOT (2 figures describing latitude in degrees followed by $\{S\}$ followed by 3 figures describing longitude in degrees followed by $\{E\}$ is associated with $\{point\}$ )	
6.	NOT (2 figures describing latitude in degrees followed by $\{N\}$ followed by 3 figures describing longitude in degrees followed by $\{W\}$ is associated with $\{point\}$ )	
7.	NOT (2 figures describing latitude in degrees followed by $\{N\}$ followed by 3 figures describing longitude in degrees followed by $\{E\}$ is associated with $\{point\}$ )	
8.	NOT (4 figures describing latitude in degrees and tens of units of minutes followed by $\{S\}$ followed by 5 figures describing longitude in degrees and tens of units of minutes followed by $\{W\}$ is associated with $\{point\}$ )	
9.	NOT (4 figures describing latitude in degrees and tens of units of minutes followed by $\{S\}$ followed by 5 figures describing longitude in degrees and tens of units of minutes followed by $\{E\}$ is associated with $\{point\}$ )	
10.	NOT (4 figures describing latitude in degrees and tens of units of minutes followed by $\{N\}$ followed by 5 figures describing longitude in degrees and tens of units of minutes followed by $\{W\}$ is associated with $\{point\}$ )	
11.	NOT (4 figures describing latitude in degrees and tens of units of minutes followed by $\{N\}$ followed by 5 figures describing longitude in degrees and tens of units of minutes followed by $\{E\}$ is associated with $\{point\}$ )	
12.	NOT (the 2 or 3 character identification of the navigation aid followed by the 3 figure bearing from the aid in degrees magnetic followed by the distance from the aid in 3 figures expressing nautical miles is associated with {point} )	

# --Test Frame 1.2:

ROIDs: I15C	
Stimuli	Response
1. NOT The flight is along a designated ATS route	1. report
2. NOT (A change of $\{flight\ rules\}$ is planned at $\{point\}$ )	error
3. NOT (A change of $\{level\}$ is planned at $\{point\}$ )	
4. NOT (A change of $\{speed\}$ is planned at $\{point\}$ )	
<ol><li>NOT ATS flight track points are required by the appropriate ATS authority</li></ol>	
6. insert {Item 15 C} - { $\{point\} details\}$	
7. NOT (A change of $\{track\}$ is planned at $\{point\}$ )	

# --Test Frame 1.3:

ROIDs: 18FT	
Stimuli	Response
1. Military	1. report
2. NOT (insert {Item 8 Type of Flight} - $\{\mathtt{M}\}$ )	error

# --Test Frame 1.4:

ROIDs: ISFT	
Stimuli	Response
1. NOT Scheduled Air Service	1. report
2. NOT Non-scheduled Air Transport Operation	error
3. NOT General Aviation	
4. NOT Military	
5. NOT (insert {Item 8 Type of Flight} - $\{X\}$ )	

# --Test Frame 1.5:

ROIDs: I15C		
Stimuli	Response	
1. The flight is along a designated ATS route	1. report	
2. A change of {ATS route other than same direction lower/upper} is planned at $\{ ext{point}\}$	error	
3. $\{  ext{next } \{  ext{point} \} \  ext{ is defined by geological } $		
4. {point} is defined by geological co-ordinates		
5. NOT (insert {Item 15 C} - { {point} followed by the designator of the next ATS route segment} )		

### --Test Frame 1.6:

ROIDs: I15C		
Stimuli	Response	
1. NOT The flight is along a designated ATS route	1. report	
<ol> <li>ATS flight track points are required by the appropriate ATS authority</li> </ol>	error	
3. $\{point\}$ and $\{point B\}$ are successive points		
4. {point B} is defined by {bearing and distance}		
5. {point} is defined by {bearing and distance}		
6. NOT (insert {Item 15 C} - {DCT between {point} and {point B} } )		

# --Test Frame 1.7:

ROIDs: I15B		
Stimuli	Response	
1. NOT Flight is uncontrolled VFR	1. report	
2. NOT (insert {Item 15 B} - {the planned cruising level for the first or the whole portion of the route to be flown as {A followed by 3 digits of Altitude in tens of metres} $\}$ )	error	
3. NOT (insert {Item 15 B} - {the planned cruising level for the first or the whole portion of the route to be flown as {S followed by 4 digits of Standard Metric Level in tens of metres} $\}$ )		
4. NOT (insert {Item 15 B} - {the planned cruising level for the first or the whole portion of the route to be flown as {F followed by 3 digits of Flight level} } )		

### --Test Frame 1.8:

ROIDs: I15C		
Stimuli	Response	
1. NOT The flight is along a designated ATS route	1. report	
2. {point} is listed in Item 15 C	error	
3. NOT (the code designator assigned to {route segment} including where appropriate the coded designator assigned to the standard {arrival} route is associated with {point} )		
4. NOT (the code designator assigned to {route segment} including where appropriate the coded designator assigned to the standard {departure} route is associated with {point} )		
5. NOT (the code designator assigned to {route} including where appropriate the coded designator assigned to the standard {arrival} route is associated with {point} )		
6. NOT (the code designator assigned to {route} including where appropriate the coded designator assigned to the standard {departure} route is associated with {point} )		

# --Test Frame 1.9:

ROIDs: I15C	
Stimuli	Response
1. The flight is along a designated ATS route	1. report
2. A change of $\{  ext{speed} \}$ is planned at $\{  ext{point} \}$	error
3. The flight to the $\{  ext{next } \{  ext{point} \} \}$ will be outside a designated route	
<ol> <li>NOT ( {point} is defined by geological co-ordinates)</li> </ol>	
5. NOT (insert {Item 15 C} - { {point} followed by DCT} )	

# --Test Frame 1.10:

ROIDs: I15C	
Stimuli	Response
1. NOT The flight is along a designated ATS route	1. report
2. A change of {flight rules} is planned at {point}	error
3. {point} is listed in Item 15 C	
4. NOT IFR to VFR	
5. VFR to IFR	
6. NOT (the letters IFR are associated with $\{point\}$	

### --Test Frame 1.11:

ROIDs: I15A	
Stimuli	Response
1. NOT Mach number is prescribed by the appropriate ATS authority	1. report error
2. NOT (insert {Item 15 A} - {the true airspeed for the first or the whole cruising portion of the flight expressed as {N followed by 4 digits of knots} })	
3. NOT (insert {Item 15 A} - {the true airspeed for the first or the whole cruising portion of the flight expressed as {K followed by 4 digits of kilometres per hour} })	

### --Test Frame 1.12:

ROIDs: I13		
Stimuli	Response	
<ol> <li>NOT The flight plan was submitted before departure</li> </ol>	1. report error	
2. NOT (insert {Item 13 B} - { {the estimated time}} over the first point of the route to which the flight plan applies} )		
3. NOT (insert {Item 13 B} - { {the actual time} over the first point of the route to which the flight plan applies} )		

#### --Test Frame 1.13:

ROIDs: 19T	
Stimuli	Response
1. There is an appropriate ICAO type designator	1. report
2. NOT This is a formation flight with more than one type	error
3. NOT (insert {Item 9 Type of Aircraft} - {the appropriate ICAO type designator} )	

# --Test Frame 1.14:

ROIDs: I19P	
Stimuli	Response
<ol> <li>Number of persons is required by the ATS authority</li> </ol>	1. report error
2. The total number of persons is known	
<ol> <li>NOT (insert {Item 19 P} - {the total number of persons [passengers and crew] on board} )</li> </ol>	

### --Test Frame 1.15:

ROIDs: I19ES3	
Stimuli	Response
1. NOT (cross out {Item 19 R} - { $V$ } )	1. report
2. Life jackets are carried	error
3. cross out {Item 19 J} - { $V$ }	

# --Test Frame 1.16:

ROIDs: I15C	
Stimuli	Response
1. The flight is along a designated ATS route	1. report
<ol> <li>NOT (The departure aerodrome is {connected to} the ATS route)</li> </ol>	error
3. NOT (The departure aerodrome is {located on} the ATS route)	
4. NOT (insert {Item 15 C} - {the letters DCT followed by the point of joining the first ATS route followed by the designator of the ATS route} )	

### --Test Frame 1.17:

ROIDs: I15C	
Stimuli	Response
1. NOT The flight is along a designated ATS route	1. report
2. {point} is listed in Item 15 C	error
3. A change of $\{  ext{level - climb} \}$ is planned at $\{  ext{point} \}$	
4. NOT (an oblique stroke followed by the speed to be maintained during cruise climb followed by {the level above which cruise climb is planned followed by PLUS} is associated with {point} )	
5. NOT (an oblique stroke followed by the speed to be maintained during cruise climb followed by {the two levels defining the layer to be occupied during cruide climb} is associated with {point} )	

#### --Test Frame 1.18:

ROIDs: I15C	
Stimuli	Response
1. NOT The flight is along a designated ATS route	1. report
<ol><li>NOT ATS flight track points are required by the appropriate ATS authority</li></ol>	error
3. NOT (insert {Item 15 C} - { $\{point\} details\}$ )	
4. NOT ( {point} and {next {point} } are normally more than {30 minutes flying time} apart)	
5. A change of $\{track\}$ is planned at $\{point\}$	

### --Test Frame 1.19:

ROIDs: I19ES6	
Stimuli	Response
1. There are remarks	1. report
2. NOT (indicate {Item 19 N} - {any other survival equipment carried and any other remarks regarding survival equipment} )	error

### --Test Frame 1.20:

ROIDs: I19ES6	
Stimuli	Response
1. NOT There are remarks	1. report
2. NOT (cross out $\{ \texttt{Item 19 N} \} - \{ \texttt{N} \}$ )	error

# --Test Frame 1.21:

Response
1. report
error
}€

# --Test Frame 1.22:

1020 1143 1121	
ROIDs: I19ES2	
Stimuli	Response
1. NOT Maritime equipment is carried	1. report
2. NOT (cross out $\{ \texttt{Item 19 S} \} - \{ \texttt{M} \}$ )	error

# --Test Frame 1.23:

ROIDs: I19ES2	
Stimuli	Response
1. NOT Desert equipment is carried	1. report
2. NOT (cross out {Item 19 S} - {D} )	error

#### --Test Frame 1.24:

ROIDs: I19ES2	
Stimuli	Response
1. NOT Polar equipment is carried	1. report
2. NOT (cross out {Item 19 S} - {P} )	error

# --Test Frame 1.25:

ROIDs: I19ES1	
Stimuli	Response
1. NOT Emergency location beacon is available	1. report
2. NOT (cross out $\{  ext{Item 19 R} \} - \{  ext{E} \}$ )	error

# --Test Frame 1.26:

1020 1143 1120	
ROIDs: I18-9	
Stimuli	Response
1. Any other plain lanugage remarks are necessary	1. report
2. NOT (insert {Item 18} - {RMK/any other remarks}	error
)	

### --Test Frame 1.27:

ROIDs: I18-8	
Stimuli	Response
1. {aerodrome} is an en-route alternate aerodrome 2. NOT (insert {Item 18} - {RALT/ {aerodrome} } )	1. report error

### --Test Frame 1.28:

ROIDs: I18-7	
Stimuli	Response
<ol> <li>Aircraft performance data is prescribed by the appropriate ATS authority</li> <li>NOT (insert {Item 18} - {PER/Aircraft performance data} )</li> </ol>	1. report error

# --Test Frame 1.29:

ROIDs: I18-6	
Stimuli	Response
1. There is a reason for special handling	1. report
2. NOT (insert {Item 18} - {STS/reason for special handling})	error

# --Test Frame 1.30:

ROIDs: I18-5	
Stimuli	Response
<ol> <li>NOT The name of the operator is obvious from the aircraft identification in Item 7</li> </ol>	1. report error
2. NOT (insert {Item 18} - {OPR/operator name} )	

#### --Test Frame 1.31:

ROIDs: I18-4	
Stimuli	Response
1. A SELCAL Code is prescribed by the appropriate ATS authority	1. report error
2. NOT (insert {Item 18} - {SEL/SELCAL Code} )	

### --Test Frame 1.32:

ROIDs: I18-3	
Stimuli	Response
1. The registration markings of the aircraft are different from the aircraft identification in Item 7	1. report error
2. NOT (insert {Item 18} - {REG/registration markings of the aircraft} )	

### --Test Frame 1.33:

ROIDs: I18-2	
Stimuli	Response
1. The route is revised	1. report
2. NOT (insert {Item 18} - {RIF/route details to the revised destination aerodrome followed by the ICAO four letter location indicator of the aerodrome} )	error

### --Test Frame 1.34:

ROIDs: I15B	
Stimuli	Response
1. Flight is uncontrolled VFR	1. report
2. NOT (insert {Item 15 B} - {VFR} )	error

# --Test Frame 1.35:

ROIDs: I15A	
Stimuli	Response
1. Mach number is prescribed by the appropriate ATS authority	1. report error
2. NOT (insert {Item 15 A} - {the true airspeed for the first or the whole cruising portion of the flight expressed as {M followed by 3 digits of Mach hundredths} } )	

### --Test Frame 1.36:

ROIDs: I13	
Stimuli	Response
<ol> <li>The flight plan was submitted before departure</li> <li>NOT (insert {Item 13 B} - {the estimated</li> </ol>	1. report error
off-block time})	

#### --Test Frame 1.37:

ROIDs: I10SE	
Stimuli	Response
1. ADS capability	1. report
2. NOT (insert {Item 10 SE} - {D} )	error

# --Test Frame 1.38:

ROIDs: I10SE	
Stimuli	Response
SSR transponder mode S including     pressure-altitude and aicraft identification     trasmission	1. report error
2. NOT (insert {Item 10 SE} - $\{S\}$ )	

#### --Test Frame 1.39:

ROIDs: I10SE	
Stimuli	Response
<ol> <li>SSR transponder mode S including aircraft identification trasmission</li> </ol>	1. report error
2. NOT (insert {Item 10 SE} - {I} )	

### --Test Frame 1.40:

ROIDs: I10SE	
Stimuli	Response
<ol> <li>SSR transponder mode S including pressure-altitude trasmission</li> </ol>	1. report error
2. NOT (insert {Item 10 SE} - $\{P\}$ )	

# --Test Frame 1.41:

ROIDs: I10SE	
Stimuli	Response
1. SSR transponder mode S only	1. report
2. NOT (insert {Item 10 SE} - $\{X\}$ )	error

### --Test Frame 1.42:

ROIDs: I10SE	
Stimuli	Response
1. SSR transponder mode A and mode C	1. report
2. NOT (insert {Item 10 SE} - {C} )	error

### --Test Frame 1.43:

ROIDs: I10SE	
Stimuli	Response
1. SSR transponder mode A	1. report
2. NOT (insert {Item 10 SE} - {A} )	error

#### --Test Frame 1.44:

ROIDs: I10SE	
Stimuli	Response
1. NOT SSR equipment is present	1. report
2. NOT (insert {Item 10 SE} - {N} )	error

# --Test Frame 1.45:

ROIDs: 19W	
Stimuli	Response
1. The maximum certified take-off mass is $\{7000\}$ kg or less	1. report error
2. NOT (insert {Item 9 Wake Turnulence} - {/L} )	

# --Test Frame 1.46:

ROIDs: 19W	
Stimuli	Response
1. The maximum certified take-off mass is less than {136000} kg but more than {7000} kg	1. report error
2. NOT (insert {Item 9 Wake Turnulence} - $\{/M\}$ )	

# --Test Frame 1.47:

ROIDs: 19W	
Stimuli	Response
1. The maximum certified take-off mass is $\{136000\}$ kg or more	1. report error
2. NOT (insert {Item 9 Wake Turnulence} - ${H}$ )	

# --Test Frame 1.48:

ROIDs: 19N	
Stimuli	Response
1. There is more than one aircraft	1. report
<ol> <li>NOT (insert {Item 9 Number of Aircraft} - {the number of aircraft} )</li> </ol>	error

### --Test Frame 1.49:

ROIDs: I8FT	
Stimuli	Response
1. Scheduled Air Service	1. report
2. NOT (insert {Item 8 Type of Flight} - $\{S\}$ )	error

# --Test Frame 1.50:

ROIDs: 18FR	
Stimuli	Response
1. VFR first	1. report
2. NOT (insert {Item 8 Flight Rules} - $\{Z\}$ )	error

#### --Test Frame 1.51:

ROIDs: I8FR	
Stimuli	Response
1. IFR first	1. report
2. NOT (insert {Item 8 Flight Rules} - {Y} )	error

# --Test Frame 1.52:

ROIDs: 18FR	
Stimuli	Response
1. VFR rules	1. report
2. NOT (insert {Item 8 Flight Rules} - $\{V\}$ )	error

# --Test Frame 1.53:

ROIDs: 18FR	
Stimuli	Response
1. IFR rules	1. report
2. NOT (insert {Item 8 Flight Rules} - {I} )	error

# --Test Frame 1.54:

ROIDs: I7B	
Stimuli	Response
<ol> <li>The radiotelephony call sign to be used by the aircraft will consist of {the ICAO telephony designator for the operating agency followed by the flight identification}</li> </ol>	1. report error
<ol> <li>NOT (insert {Item 7} - {the ICAO telephony designator for the operating agency followed by the flight identification} )</li> </ol>	

### --Test Frame 1.55:

ROIDs: I19ES4	
Stimuli	Response
1. NOT (cross out {Item 19 D} - {C} )	1. report
2. NOT Dinghies are covered	error

# --Test Frame 1.56:

ROIDs: I19ES4	
Stimuli	Response
1. NOT Dinghies are carried	1. report
2. NOT (cross out {Item 19 D} - {D} )	error

# --Test Frame 1.57:

ROIDs: I19ES3	
Stimuli	Response
1. NOT (cross out {Item 19 J} - {L} )	1. report
2. NOT Life jackets are equipped with lights	error

### --Test Frame 1.58:

ROIDs: I19ES3	
Stimuli	Response
1. NOT (cross out {Item 19 J} - {F_} )	1. report
2. NOT Life jackets are equipped with fluorescein	error

### --Test Frame 1.59:

ROIDs: I16-2	
Stimuli	Response
NOT Location indicator has been assigned to the alternate aerodrome	1. report error
2. NOT (insert {Item 18} - {ALTN/ the name of the alternate aerodrome} )	

### --Test Frame 1.60:

ROIDs: I16-1	
Stimuli	Response
1. Location indicator has been assigned	1. report
2. NOT (insert {Item 16 Dest} - {the ICAO four letter location indicator of the destination aerodrome followed by the total estimated elapsed time} )	error

### --Test Frame 1.61:

ROIDs: I13	
Stimuli	Response
<ol> <li>The flight plan is received from an aircraft in flight</li> </ol>	1. report error
2. NOT (insert {Item 18} - {DEP/ the four-letter location indicator of the location of the ATS unit from which supplementary flight data can be obtained} )	

# --Test Frame 1.62:

ROIDs: I19ES4	
Stimuli	Response
1. Dinghies are carried	1. report
2. NOT (insert {Item 19 D} - {colour of dinghies} )	error

# --Test Frame 1.63:

ROIDs: I19ES3	
Stimuli	Response
1. cross out {Item 19 R} - {U}	1. report
2. NOT (cross out {Item 19 J} - {U} )	error

#### --Test Frame 1.64:

ROIDs: I19ES3	
Stimuli	Response
1. cross out {Item 19 R} - {V}	1. report
2. NOT (cross out {Item 19 J} - { $\mathtt{V}$ } )	error

### --Test Frame 1.65:

ROIDs: I19ES1	
Stimuli	Response
1. NOT UHF on frequency 243.0 MHz is available	1. report
2. NOT (cross out $\{  ext{Item 19 R} \} - \{  ext{U} \}$ )	error

### --Test Frame 1.66:

ROIDs: I19P	
Stimuli	Response
<ol> <li>Number of persons is required by the ATS authority</li> </ol>	1. report error
2. NOT The total number of persons is known	
3. NOT (insert {Item 19 P} - {TBN} )	

# --Test Frame 1.67:

ROIDs: 19T	
Stimuli	Response
<ol> <li>This is a formation flight with more than one type</li> </ol>	1. report error
2. NOT (insert {Item 18} - {TYP/ Types of aircraft preceded by numbers of aircraft} )	

### --Test Frame 1.68:

ROIDs: 19T	
Stimuli	Response
1. NOT There is an appropriate ICAO type designator	1. report
2. NOT (insert {Item 9 Type of Aircraft} - {ZZZZ} )	error

#### --Test Frame 1.69:

ROIDs: I7A	
Stimuli	Response
1. The radiotelephony call sign to be used by the aircraft will consist of {the registration marking of the aircraft preceded by the ICAO telephony designator for the aircraft operating agency}	1. report error
2. NOT (insert {Item 7} - {the registration marking of the aircraft} )	

#### --Test Frame 1.70:

ROIDs: I18-1	
Stimuli	Response
<ol> <li>{point} is a {FIR boundary} prescribed {by the approapriate ATS authority}</li> </ol>	1. report error
2. NOT (insert {Item 18} - {EET/ {point} } )	

# --Test Frame 1.71:

ROIDs: I16-1	
Stimuli	Response
1. NOT Location indicator has been assigned	1. report
2. NOT (insert {Item 18} - {DEST/ the name of the aerodrome} )	error

### --Test Frame 1.72:

ROIDs: 18FT	
Stimuli	Response
1. Non-scheduled Air Transport Operation	1. report
2. NOT (insert {Item 8 Type of Flight} - {N} )	error

# --Test Frame 1.73:

ROIDs: 18FT	
Stimuli	Response
1. General Aviation	1. report
2. NOT (insert {Item 8 Type of Flight} - $\{G\}$ )	error

### --Test Frame 1.74:

ROIDs: I15C	
Stimuli	Response
1. The flight is along a designated ATS route	1. report
2. The departure aerodrome is {connected to} the ATS route	error
3. NOT (insert {Item 15 C} - {the designator of the first ATS route} )	

# --Test Frame 1.75:

ROIDs: I10	
Stimuli	Response
<ol> <li>Standard COM/NAV/approach aid equipment for the route to be flown is carried and is serviceable</li> </ol>	1. report error
2. NOT (insert {Item 10 CNA} - $\{S\}$ )	

### --Test Frame 1.76:

ROIDs: I15C	
Stimuli	Response
1. NOT The flight is along a designated ATS route	1. report
2. {point} is listed in Item 15 C	error
3. A significant point code designator has been assigned to $\{ ext{point}\}$	
4. NOT (the 2 to 5 characters of the assigned coded designator is associated with $\{point\}$ )	

# --Test Frame 1.77:

ROIDs: I15C	
Stimuli	Response
1. The flight is along a designated ATS route	1. report
2. A change of {level} is planned at {point}	error
<ol> <li>NOT (The flight to the {next {point} } will be outside a designated route)</li> </ol>	
4. NOT (insert {Item 15 C} - { {point} followed by the designator of the next ATS route segment} )	

### --Test Frame 1.78:

ROIDs: I15C	
Stimuli	Response
1. NOT The flight is along a designated ATS route	1. report error
2. {point} is listed in Item 15 C	
3. NOT (an oblique stroke and both the cruising speed and the cruising level is associated with $\{  ext{point} \}$ )	
<ol> <li>A change of {speed - 0.01 Mach or more} is planned at {point}</li> </ol>	

# --Test Frame 1.79:

ROIDs: I15C	
Stimuli	Response
1. NOT The flight is along a designated ATS route	1. report error
<ol><li>NOT ATS flight track points are required by the appropriate ATS authority</li></ol>	
3. insert {Item 15 C} - { $\{point\} details\}$	
4. {point} and {next {point} } are normally more than {370km} apart	
5. {point} and {next {point} } are normally more than {30 minutes flying time} apart	

### --Test Frame 1.80:

ROIDs: I15C	
Stimuli	Response
1. NOT The flight is along a designated ATS route	1. report
<ol><li>ATS flight track points are required by the appropriate ATS authority</li></ol>	error
3. $\{point\}$ and $\{point B\}$ are successive points	
4. NOT (insert {Item 15 C} - {DCT between {point} and {point B} } )	
5. {point B} is defined by {goegraphical co-ordinates}	
6. {point} is defined by {goegraphical co-ordinates}	

# --Test Frame 1.81:

ROIDs: I15C	
Stimuli	Response
1. NOT The flight is along a designated ATS route	1. report
<ol> <li>ATS flight track points are required by the appropriate ATS authority</li> </ol>	error
3. $\{point\}$ and $\{point B\}$ are successive points	
4. NOT (insert {Item 15 C} - { {point} followed by {point B} } )	
5. NOT ( {point} is defined by {goegraphical co-ordinates} )	

# --Test Frame 1.82:

ROIDs: I15C	
Stimuli	Response
1. NOT The flight is along a designated ATS route	1. report
2. A change of $\{  ext{flight rules} \}$ is planned at $\{  ext{point} \}$	error
3. $\{ ext{point}\}$ is listed in Item 15 C	
4. IFR to VFR	
5. NOT (the letters VFR are associated with $\{point\}$	

# --Test Frame 1.83:

ROIDs: I19ES7	
Stimuli	Response
1. NOT (insert {Item 19 C} - {name of pilot in command})	1. report error

#### --Test Frame 1.84:

ROIDs: I19ES5	
Stimuli	Response
1. NOT (insert {Item 19 A} - {colour of aircraft and significant markings} )	1. report error

# --Test Frame 1.85:

ROIDs: I19E	
Stimuli	Response
1. NOT (insert {Item 19 E} - {the four digit fuel endurance in hours and minutes} )	1. report error

# --Test Frame 1.86:

ROIDs: I16-2	
Stimuli	Response
1. NOT Location indicator has been assigned to the alternate aerodrome	1. report error
2. NOT (insert {Item 16 Alt} - {ZZZZ} )	

### --Test Frame 1.87:

ROIDs: I13	
Stimuli	Response
<ol> <li>The flight plan is received from an aircraft in flight</li> </ol>	1. report error
2. NOT (insert {Item 13 A} - {AFIL} )	

#### --Test Frame 1.88:

ROIDs: I19ES4	
Stimuli	Response
1. Dinghies are carried	1. report
<pre>2. NOT (insert {Item 19 D} - {total capacity in persons of all dinghies carried} )</pre>	error

# --Test Frame 1.89:

ROIDs: I19ES4	
Stimuli	Response
1. Dinghies are carried	1. report
2. NOT (insert {Item 19 D} - {number of dinghies carried} )	error

### --Test Frame 1.90:

ROIDs: I19ES1	
Stimuli	Response
1. NOT VHF on frequency 121.5 MHz is available	1. report
2. NOT (cross out {Item 19 R} - { $\tt V}$ } )	error

#### --Test Frame 1.91:

ROIDs: I7A	
Stimuli	Response
1. The radiotelephony call sign to be used by the aircraft will consist of $\{ \text{the registration } \}$	1. report error
2. NOT (insert {Item 7} - {the registration marking of the aircraft} )	

# --Test Frame 1.92:

ROIDs: I7A	
Stimuli	Response
1. NOT The aircraft is equipped with radio	1. report
2. NOT (insert {Item 7} - {the registration marking of the aircraft} )	error

### --Test Frame 1.93:

ROIDs: I19ES3	
Stimuli	Response
1. NOT (cross out $\{\text{Item 19 R}\}$ - $\{\text{U}\}$ )	1. report
2. Life jackets are carried	error
3. cross out {Item 19 J} - {U}	

# --Test Frame 1.94:

ROIDs: I18-1	
Stimuli	Response
<ol> <li>{point} is a {FIR boundary} prescribed {on the basis of regional air navigation agreements}</li> </ol>	1. report error
2. NOT (insert {Item 18} - {EET/ {point} } )	

### --Test Frame 1.95:

ROIDs: I18-1	
Stimuli	Response
<ol> <li>{point} is a {significant point} prescribed {by the approapriate ATS authority}</li> </ol>	1. report error
2. NOT (insert {Item 18} - {EET/ {point} } )	

# --Test Frame 1.96:

ROIDs: I18-1	
Stimuli	Response
<ol> <li>{point} is a {significant point} prescribed {on the basis of regional air navigation agreements}</li> </ol>	1. report error
2. NOT (insert {Item 18} - {EET/ {point} } )	

#### --Test Frame 1.97:

ROIDs: I16-1	
Stimuli	Response
1. NOT Location indicator has been assigned	1. report
<pre>2. NOT (insert {Item 16 Dest} - {ZZZZ followed by the total estimated elapsed time} )</pre>	error

# --Test Frame 1.98:

ROIDs: I19ES3	
Stimuli	Response
1. NOT Life jackets are carried	1. report
2. NOT (cross out $\{ \text{Item 19 J} \} - \{ \text{L} \}$ )	error

### --Test Frame 1.99:

ROIDs: I15C	
Stimuli	Response
1. The flight is along a designated ATS route	1. report
2. The departure aerodrome is $\{  ext{located on} \}$ the ATS route	error
3. NOT (insert {Item 15 C} - {the designator of the first ATS route} )	

### --Test Frame 1.100:

ROIDs: I15C	
Stimuli	Response
1. NOT The flight is along a designated ATS route	1. report
<ol> <li>ATS flight track points are required by the appropriate ATS authority</li> </ol>	error
3. NOT Use ATS style track points	

### --Test Frame 1.101:

ROIDs: I15C	
Stimuli	Response
1. NOT The flight is along a designated ATS route	1. report error
2. {point} is listed in Item 15 C	
3. NOT (an oblique stroke and both the cruising speed and the cruising level is associated with $\{ {\tt point} \}$ )	
4. A change of $\{ speed - 5pc \ TAS \ or \ more \}$ is planned at $\{ point \}$	

### --Test Frame 1.102:

ROIDs: I15C	
Stimuli	Response
1. The flight is along a designated ATS route	1. report
<ol> <li>A change of {ATS route other than same direction lower/upper} is planned at {point}</li> </ol>	error
3. The flight to the {next {point} } will be outside a designated route	
4. NOT ( $\{ next \{ point \} \}$ is defined by geological co-ordinates)	
5. NOT (insert {Item 15 C} - { {point} followed by DCT} )	

### --Test Frame 1.103:

Test Trame 1.100.	
ROIDs: I15C	
Stimuli	Response
1. NOT The flight is along a designated ATS route	1. report error
<ol> <li>ATS flight track points are required by the appropriate ATS authority</li> </ol>	
3. $\{point\}$ and $\{point B\}$ are successive points	
4. NOT (insert {Item 15 C} - { {point} followed by {point B} } )	
5. NOT ( {point B} is defined by {goegraphical co-ordinates} )	

# --Test Frame 1.104:

ROIDs: I15C	
Stimuli	Response
<ol> <li>NOT The flight is along a designated ATS route</li> <li>ATS flight track points are required by the</li> </ol>	1. report error
appropriate ATS authority	
3. $\{point\}$ and $\{point B\}$ are successive points	
4. NOT ( $\{ ext{point}\}$ is defined by $\{ ext{bearing and distance}\}$ )	
5. NOT (insert {Item 15 C} - { {point} followed by {point B} } )	

#### --Test Frame 1.105:

ROIDs: I15C	
Stimuli	Response
1. NOT The flight is along a designated ATS route	1. report
<ol> <li>ATS flight track points are required by the appropriate ATS authority</li> </ol>	error
3. $\{point\}$ and $\{point B\}$ are successive points	
4. NOT ( $\{ ext{point B}\}$ is defined by $\{ ext{bearing and distance}\}$ )	
5. NOT (insert {Item 15 C} - { {point} followed by {point B} } )	

# --Test Frame 1.106:

ROIDs: I15C	
Stimuli	Response
1. NOT The flight is along a designated ATS route	1. report
<ol><li>NOT ATS flight track points are required by the appropriate ATS authority</li></ol>	error
3. NOT (insert {Item 15 C} - { $\{point\} details\}$ )	
<pre>4. NOT ( {point} and {next {point} } are normally    more than {370km} apart)</pre>	
5. A change of {track} is planned at {point}	

# --Test Frame 1.107:

ROIDs: I13 I16-1	
Stimuli	Response
<ol> <li>NOT The flight plan is received from an aircraft in flight</li> </ol>	1. report error
2. Location indicator has been assigned	
3. NOT (insert {Item 13 A} - {the ICAO four-letter location indicator of the departure aerodrome})	

### --Test Frame 1.108:

ROIDs: I10	
Stimuli	Response
<ol> <li>Standard COM/NAV/approach aid equipment for the route to be flown is carried and is serviceable</li> </ol>	1. report error
2. {W} is prescribed by ATS 3. NOT (insert {Item 10 CNA} - {W} )	

#### --Test Frame 1.109:

ROIDs: I10	
Stimuli	Response
<ol> <li>Standard COM/NAV/approach aid equipment for the route to be flown is carried and is serviceable</li> </ol>	1. report error
2. {X} is prescribed by ATS	
3. NOT (insert {Item 10 CNA} - $\{X\}$ )	

### --Test Frame 1.110:

ROIDs: I10	
Stimuli	Response
<ol> <li>Standard COM/NAV/approach aid equipment for the route to be flown is carried and is serviceable</li> </ol>	1. report error
2. {Y} is prescribed by ATS	
3. NOT (insert {Item 10 CNA} - $\{Y\}$ )	

### --Test Frame 1.111:

ROIDs: I10	
Stimuli	Response
<ol> <li>Standard COM/NAV/approach aid equipment for the route to be flown is carried and is serviceable</li> </ol>	1. report error
2. COM/NAV/approach aid equipment is $\{ exttt{VHF RTF}\}$	
3. NOT (insert {Item 10 CNA} - { $\mathtt{V}$ } )	

# --Test Frame 1.112:

ROIDs: I10	
Stimuli	Response
<ol> <li>Standard COM/NAV/approach aid equipment for the route to be flown is carried and is serviceable</li> </ol>	1. report error
2. COM/NAV/approach aid equipment is {UHF RTF}	
3. NOT (insert {Item 10 CNA} - {U} )	

### --Test Frame 1.113:

ROIDs: I10	
Stimuli	Response
<ol> <li>Standard COM/NAV/approach aid equipment for the route to be flown is carried and is serviceable</li> </ol>	1. report error
2. ${\tt COM/NAV/approach\ aid\ equipment\ is\ \{TACAN\}}$	
3. NOT (insert {Item 10 CNA} - {T $\_$ } )	

#### --Test Frame 1.114:

ROIDs: I10	
Stimuli	Response
<ol> <li>Standard COM/NAV/approach aid equipment for the route to be flown is carried and is serviceable</li> </ol>	1. report error
<ol> <li>COM/NAV/approach aid equipment is {RNP type certification}</li> </ol>	
3. NOT (insert {Item 10 CNA} - $\{R\}$ )	

### --Test Frame 1.115:

ROIDs: I10	
Stimuli	Response
<ol> <li>Standard COM/NAV/approach aid equipment for the route to be flown is carried and is serviceable</li> </ol>	1. report error
2. $COM/NAV/approach$ aid equipment is $\{VOR\}$	
3. NOT (insert {Item 10 CNA} - $\{0\}$ )	

### --Test Frame 1.116:

ROIDs: I10	
Stimuli	Response
<ol> <li>Standard COM/NAV/approach aid equipment for the route to be flown is carried and is serviceable</li> </ol>	1. report error
2. COM/NAV/approach aid equipment is $\{\mathtt{Omega}\}$	
3. NOT (insert {Item 10 CNA} - {M} )	

### --Test Frame 1.117:

ROIDs: I10	
Stimuli	Response
<ol> <li>Standard COM/NAV/approach aid equipment for the route to be flown is carried and is serviceable</li> </ol>	1. report error
2. $\texttt{COM/NAV/approach aid equipment is \{ILS\}}$	
3. NOT (insert {Item 10 CNA} - {L} )	

### --Test Frame 1.118:

ROIDs: I10	
Stimuli	Response
<ol> <li>Standard COM/NAV/approach aid equipment for the route to be flown is carried and is serviceable</li> </ol>	1. report error
2. COM/NAV/approach aid equipment is $\{\mathtt{MLS}\}$	
3. NOT (insert {Item 10 CNA} - $\{K\}$ )	

#### --Test Frame 1.119:

ROIDs: I10	
Stimuli	Response
<ol> <li>Standard COM/NAV/approach aid equipment for the route to be flown is carried and is serviceable</li> </ol>	1. report error
2. ${\tt COM/NAV/approach\ aid\ equipment\ is\ \{Inertial\ Navigation\}}$	
3. NOT (insert {Item 10 CNA} - {I} )	

### --Test Frame 1.120:

ROIDs: I10	
Stimuli	Response
1. Standard COM/NAV/approach aid equipment for the route to be flown is carried and is serviceable 2. COM/NAV/approach aid equipment is {HF RTF}	1. report error
3. NOT (insert {Item 10 CNA} - {H} )	

# --Test Frame 1.121:

ROIDs: I10	
Stimuli	Response
<ol> <li>Standard COM/NAV/approach aid equipment for the route to be flown is carried and is serviceable</li> </ol>	1. report error
2. COM/NAV/approach aid equipment is $\{ ext{GNSS}\}$	
3. NOT (insert {Item 10 CNA} - $\{G\}$ )	

### --Test Frame 1.122:

ROIDs: I10	
Stimuli	Response
<ol> <li>Standard COM/NAV/approach aid equipment for the route to be flown is carried and is serviceable</li> </ol>	1. report error
2. ${\tt COM/NAV/approach\ aid\ equipment\ is\ \{ADF\}}$	
3. NOT (insert {Item 10 CNA} - $\{F_{-}\}$ )	

### --Test Frame 1.123:

ROIDs: I10	
Stimuli	Response
<ol> <li>Standard COM/NAV/approach aid equipment for the route to be flown is carried and is serviceable</li> </ol>	1. report error
2. ${\tt COM/NAV/approach\ aid\ equipment\ is\ \{DME\}}$	
3. NOT (insert {Item 10 CNA} - {D} )	

#### --Test Frame 1.124:

ROIDs: I10	
Stimuli	Response
<ol> <li>Standard COM/NAV/approach aid equipment for the route to be flown is carried and is serviceable</li> </ol>	1. report error
2. COM/NAV/approach aid equipment is {LORAN C}	
3. NOT (insert {Item 10 CNA} - {C} )	

### --Test Frame 1.125:

ROIDs: I10	
Stimuli	Response
<ol> <li>Standard COM/NAV/approach aid equipment for the route to be flown is carried and is serviceable</li> </ol>	1. report error
2. ${\tt COM/NAV/approach\ aid\ equipment\ is\ \{other\}}$	
3. NOT (insert {Item 18} - {COM/ or NAV/} )	

### --Test Frame 1.126:

ROIDs: I10	
Stimuli	Response
<ol> <li>Standard COM/NAV/approach aid equipment for the route to be flown is carried and is serviceable</li> <li>COM/NAV/approach aid equipment is {Data Link}</li> <li>NOT (insert {Item 18} - {DAT/} )</li> </ol>	1. report error

#### --Test Frame 1.127:

ROIDs: I13 I16-1	
Stimuli	Response
1. NOT The flight plan is received from an aircraft in flight	1. report error
2. NOT Location indicator has been assigned	
3. NOT (insert {Item 13} - {DEP/ aerodrome name} )	

### --Test Frame 1.128:

ROIDs: I13 I16-1	
Stimuli	Response
1. NOT The flight plan is received from an aircraft in flight	1. report error
2. NOT Location indicator has been assigned	
3. NOT (insert {Item 13 A} - {ZZZZZ} )	

#### --Test Frame 1.129:

ROIDs: I10	
Stimuli	Response
<ol> <li>Standard COM/NAV/approach aid equipment for the route to be flown is carried and is serviceable</li> </ol>	1. report error
2. COM/NAV/approach aid equipment is {other}	
3. NOT (insert {Item 10 CNA} - $\{Z\}$ )	

#### --Test Frame 1.130:

ROIDs: I10	
Stimuli	Response
<ol> <li>Standard COM/NAV/approach aid equipment for the route to be flown is carried and is serviceable</li> </ol>	1. report error
2. COM/NAV/approach aid equipment is {Data Link}	
3. NOT (insert {Item 10 CNA} - $\{J\}$ )	

### E.3 Differentiated Test Frames

Computing the differentiated test frames in full detail is impractical. To reduce the time required to generate test frames, the differentiated test frames were produced by expanding portions of the specification and generating test frames for that portion.

Some of the differentiated test frames do not have any requirement identifiers (ROIDs) attached to them. This can occur when non-primitives form the base, or non-differentiating, portion of the test frame. Requirement identifiers attached to conditions that differentiate the test frame are not listed with the test frame. This is because only the base conditions are relevant for coverage purposes. Therefore, those test frames below that do not list any requirement identifiers can be eliminated. Such test frames are redundant since there is another test frame where a non-primitive in the base is expanded to its underlying primitives and this other test frame with list any attached requirement identifiers.