

APPENDICES

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APPENDIX 7. TECHNICAL SPECIFICATIONS
 RELATED TO METEOROLOGICAL INFORMATION CONTAINING ADVISORIES, ALERTS
 AND WARNINGS (SIGMET, AIRMET)

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Table A7-3. Template for advisory message for space weather information

Key: M = inclusion mandatory, part of every message;
 C = inclusion conditional, included whenever applicable;
 = = a double line indicates that the text following it should be placed on the
 subsequent line.

Note 1.— The explanations for the abbreviations can be found in the PANS-ABC (Doc 8400).

Note 2.— The spatial resolutions are shown in Appendix 7, Table A7-8.

Note 3.— Inclusion of a colon after each element heading is mandatory.

Note 4.— The numbers 1 to 14 are included only for clarity and are not part of the advisory
 information, as shown in the examples.

Element	Detailed content	Template(s)	Examples	
...				
4	Name of SWXC (M)	Name of SWXC	SWXC: Nnnnnnnnnnn	SWXC: DONLON ²
...				
75	Space weather effect and intensity (M)	Effect and intensity of the space weather phenomena	SWX EFFECT: HF COM MOD or SEV [AND] ³ or SATCOM MOD or SEV [AND] ³ or GNSS MOD or SEV [AND] ³ or RADIATION ⁴ MOD or SEV	SWX EFFECT: HF COM MOD SATCOM SEV GNSS SEV HF COM MOD AND SATCOM MOD AND GNSS MOD RADIATION MOD SATCOM SEV
56	Advisory number (M)	Year in full and unique message number	ADVISORY NR: nnnn/[n][n][n]	ADVISORY NR: 2016/1

67	Number(s) of advisory/ies being replaced (C)	Number(s) of the previously issued advisory/ies being replaced ³	NR RPLC: nnnn/[n][n][n]n [nnnn/[n][n][n]n] ³	NR RPLC: 2016/1 2020/35 2021/1 2020/15 2020/16
8	Observed or expected space weather event (M)	Day and time (in UTC) of observed phenomena (or forecast if phenomena have yet to occur); Intensity, Horizontal extent ^{3,4} (latitude bands and longitude in degrees) and/or; Altitude of space weather phenomena ⁵	OBS (or FCST) SWX: nn/nnnnZ DAYLIGHT SIDE or MOD or SEV HNH and/or MNH and/or EQN and/or EQS and/or MSH and/or HSH Wnnn(##) or Ennn(##) – Wnnn(##) or Ennn(##) and/or DAYSIDE or NIGHTSIDE and/or ABV FLnnn or FLnnn- nnn and/or MOD or SEV Nnn(##) or Snn(##) Wnnn(##) or Ennn(##) – Nnn(##) or Snn(##) Wnnn(##) or Ennn(##) – [Nnn(##) or Snn(##) Wnnn(##) or Ennn(##)] – Nnn(##) or Snn(##) Wnnn(##) or Ennn(##)] ^{6, 7} and ⁵ , ABV FLnnn or FLnnn- nnn or NO SWX EXP	OBS SWX: 08/0100Z MOD DAYLIGHT SIDE 08/0100Z SEV HNH HSH DAYSIDE MOD MNH MSH DAYSIDE 08/0100Z SEV HNH HSH EW18000 – WE18000 MOD MNH MSH W090-E030 08/0100Z SEV N80 W180 - N70 W075 - N60 E015 - N70 E075 - N80 W180 MOD N60 W180 – N50 W075 – N40 E015 – N50 E075 – N60 W180 08/0100Z SEV HNH HSH W18000 – W09000 ABV FL350 MOD HNH HSH W180-W090 FL250-350 08/0100Z MOD S2000 W17000 – S2000 W13000 – S1000 W13000 – S1000 W17000 – S2000 W17000 08/0100Z MOD N80 W180 - N70 W075 - N60 E015 - N70 E075 - N80 W180 ABV FL400 NO SWX EXP
9	Forecast of the phenomena (+6 HR) (M)	Day and time (in UTC) (6 hours from time given in item 8, rounded to the next full hour); Forecast intensity, extent, and altitude for the fixed valid time; ^{4, 5} and/or altitude of the space weather phenomena for that fixed valid time	FCST SWX +6 HR: nn/nnnnZ DAYLIGHT SIDE or MOD or SEV HNH and/or MNH and/or EQN and/or EQS and/or MSH and/or HSH Wnnn(##) or Ennn(##) – Wnnn(##) or Ennn(##) and/or DAYSIDE or NIGHTSIDE and/or ABV FLnnn or FLnnn- nnn and/or MOD or SEV Nnn(##) or Snn(##) Wnnn(##) or Ennn(##) – Nnn(##) or Snn(##) Wnnn(##) or Ennn(##) – Nnn(##) or Snn(##) Wnnn(##) or Ennn(##) – [Nnn(##) or Snn(##) Wnnn(##) or Ennn(##)] – Nnn(##) or Snn(##) Wnnn(##) or Ennn(##)] ^{6, 7} and ⁵ , ABV FLnnn or FLnnn- nnn or NO SWX EXP or NOT AVBL	FCST SWX +6 HR: 08/0700Z SEV HNH HSH DAYLIGHT SIDE MOD HNH HSH NIGHTSIDE 08/0700Z MOD HNH HSH W18000 – W09000 ABV FL350 08/0700Z SEV HNH HSH EW18000 – WE18000 MOD MNH MSH W090-E030 08/0700Z SEV N80 W180 - N70 W075 - N60 E015 - N70 E075 - N80 W180 MOD N60 W180 – N50 W075 – N40 E015 – N50 E075 – N60 W180 08/0700Z MOD HNH HSH DAYSIDE 08/0700Z MOD S20 W170 – S20 W130 – S10 W130 – S10 W170 – S20 W170 08/0700Z MOD N80 W180 - N70 W075 - N60 E015 - N70 E075 - N80 W180 ABV FL400 NO SWX EXP NOT AVBL
10	Forecast of the phenomena (+12 HR) (M)	Day and time (in UTC) (12 hours from time given in item 8, rounded to the next full hour); Forecast intensity, extent, and altitude for the fixed valid time; ^{4, 5}	FCST SWX +12 HR: nn/nnnnZ DAYLIGHT SIDE or MOD or SEV HNH and/or MNH and/or EQN and/or EQS and/or MSH and/or HSH Wnnn(##) or Ennn(##) – Wnnn(##) or Ennn(##) and/or DAYSIDE or NIGHTSIDE and/or	FCST SWX +12 HR: 08/1300Z MOD DAYLIGHT SIDE 08/1300Z MOD HNH HSH W18000 – W09000 ABV FL350 08/1300Z MOD HNH HSH EW18000 – WE18000 08/1300Z MOD HNH HSH DAYSIDE

		<p>and/or altitude of the space weather phenomena for that fixed valid time</p>	<p>ABV FLnnn or FLnnn-nnn and/or</p> <p>MOD or SEV Nnn[nn] or Snn[nn] Wnnn[nn] or Ennn[nn] – Nnn[nn] or Snn[nn] Wnnn[nn] or Ennn[nn] – Nnn[nn] or Snn[nn] Wnnn[nn] or Ennn[nn] – [Nnn[nn] or Snn[nn] Wnnn[nn] or Ennn[nn]] – Nnn[nn] or Snn[nn] Wnnn[nn] or Ennn[nn]]^{6, 7}</p> <p>and⁵, ABV FLnnn or FLnnn-nnn</p> <p>or NO SWX EXP or NOT AVBL</p>	<p>08/1300Z MOD EQN W090-E030</p> <p>08/1300Z MOD S20 W170 – S20 W130 – S10 W130 – S10 W170 – S20 W170</p> <p>08/1300Z MOD N80 W180 - N70 W075 - N60 E015 - N70 E075 - N80 W180 ABV FL400</p> <p>NO SWX EXP</p> <p>NOT AVBL</p>
11	<p>Forecast of the phenomena (+18 HR) (M)</p>	<p>Day and time (in UTC) (18 hours from time given in item 8, rounded to the next full hour); Forecast intensity, extent, and altitude for the fixed valid time; ^{4, 5} and/or altitude of the space weather phenomena for that fixed valid time</p>	<p>FCST SWX +18 HR:</p> <p>nn/nnnnZ DAYLIGHT SIDE or MOD or SEV HNH and/or MNH and/or EQN and/or EQS and/or MSH and/or HSH Wnnn(nn) or Ennn(nn) – Wnnn(nn) or Ennn(nn) and/or DAYSIDE or NIGHTSIDE</p> <p>and/or ABV FLnnn or FLnnn-nnn and/or</p> <p>MOD or SEV Nnn[nn] or Snn[nn] Wnnn[nn] or Ennn[nn] – Nnn[nn] or Snn[nn] Wnnn[nn] or Ennn[nn] – Nnn[nn] or Snn[nn] Wnnn[nn] or Ennn[nn] – [Nnn[nn] or Snn[nn] Wnnn[nn] or Ennn[nn]] – Nnn[nn] or Snn[nn] Wnnn[nn] or Ennn[nn]]^{6, 7}</p> <p>and⁵, ABV FLnnn or FLnnn-nnn</p> <p>or NO SWX EXP or NOT AVBL</p>	<p>FCST SWX +18 HR:</p> <p>08/1900Z MOD DAYLIGHT SIDE</p> <p>08/1900Z MOD HNH HSH W18000 – W09000 ABV FL350</p> <p>08/1900Z MOD HNH HSH EW18000 – WE18000</p> <p>08/1900Z MOD HNH HSH DAYSIDE</p> <p>08/1900Z MOD EQN W090-E030</p> <p>08/1900Z MOD S20 W170 – S20 W130 – S10 W130 – S10 W170 – S20 W170</p> <p>08/1900Z MOD N80 W180 - N70 W075 - N60 E015 - N70 E075 - N80 W180 ABV FL400</p> <p>NO SWX EXP</p> <p>NOT AVBL</p>
12	<p>Forecast of the phenomena (+24 HR) (M)</p>	<p>Day and time (in UTC) (24 hours from time given in item 8, rounded to the next full hour); Forecast intensity, extent, and altitude for the fixed valid time; ^{4, 5} and/or altitude of the space weather phenomena for that fixed valid time</p>	<p>FCST SWX +24 HR:</p> <p>nn/nnnnZ DAYLIGHT SIDE or MOD or SEV HNH and/or MNH and/or EQN and/or EQS and/or MSH and/or HSH Wnnn(nn) or Ennn(nn) – Wnnn(nn) or Ennn(nn) and/or DAYSIDE or NIGHTSIDE</p> <p>and/or ABV FLnnn or FLnnn-nnn and/or</p> <p>MOD or SEV Nnn[nn] or Snn[nn] Wnnn[nn] or Ennn[nn] – Nnn[nn] or Snn[nn] Wnnn[nn] or Ennn[nn] – Nnn[nn] or Snn[nn] Wnnn[nn] or Ennn[nn] – [Nnn[nn] or Snn[nn] Wnnn[nn] or Ennn[nn]] – Nnn[nn] or Snn[nn] Wnnn[nn] or Ennn[nn]]^{6, 7}</p> <p>and⁵, ABV FLnnn or FLnnn-nnn</p> <p>or NO SWX EXP or</p>	<p>FCST SWX +24 HR:</p> <p>09/0100Z MOD DAYLIGHT SIDE</p> <p>09/0100Z MOD HNH HSH W18000 – W09000 ABV FL350</p> <p>09/0100Z MOD HNH HSH EW18000 – WE18000</p> <p>09/0100Z MOD HNH HSH DAYSIDE</p> <p>09/0100Z MOD EQN W090-E030</p> <p>09/0100Z MOD S20 W170 – S20 W130 – S10 W130 – S10 W170 – S20 W170</p> <p>09/0100Z MOD N80 W180 - N70 W075 - N60 E015 - N70 E075 - N80 W180 ABV FL400</p> <p>NO SWX EXP</p> <p>NOT AVBL</p>

			NOT AVBL	
13	Remarks (M)	Remarks, as necessary	RMK: <i>Free text up to 256 characters</i> or NIL	RMK: END OF SWX RADIATION EVENT HAS CEASED WWW.SPACEWEATHERPROVIDER.GOV NIL

Notes.—

1. To be Used only when the message issued to indicate that a test (TEST) or an exercise (EXER) is taking place. When the word "TEST" or the abbreviation "EXER" is included, the message advisory may contain information that should not be used operationally or will otherwise end immediately after the word "TEST". *[Applicable 7 November 2019]*
2. Fictitious Fictitious location.
3. One or more effects with the same intensity may be combined.
3. Up to four advisories may be replaced.
4. One or mMore latitude ranges than one intensity and extent area may be included in the space weather advisory information.
5. Altitude information only applies to radiation events.
6. The end point is a repeat of the start point.
7. When disseminated in abbreviated plain language, the number of coordinates should be kept to a minimum and should not normally exceed seven.

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Table A7-8. Ranges and resolutions for the numerical elements included in space weather advisory information

(See Chapter 6, 6.3 of this PANS)

<i>Element to be forecast</i>		<i>Range</i>	<i>Resolution</i>
Flight Level affected by radiation		250 - 600	10
Longitudes for advisories (degrees)		000 – 180	15 5
Latitudes for advisories (degrees)		00 - 90	10 5
Latitude bands for advisories:	High latitudes northern hemisphere (HNH)	N9000 - N6000	30
	Middle latitudes northern hemisphere (MNH)	N6000 - N3000	
	Equatorial latitudes northern hemisphere (EQN)	N3000 - N0000	
	Equatorial latitudes southern hemisphere (EQS)	S0000 - S3000	
	Middle latitudes southern hemisphere (MSH)	S3000 - S6000	
	High latitudes southern hemisphere (HSH)	S6000 - S9000	

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