

Example of Space Weather Advisory

- SWX Advisory is similar in structure to volcanic ash and tropical cyclone strictly formulated advisories
- Spatial range of SWX Advisory can be very large
- SIGMETs or NOTAMs are not issued based on SWX Advisories
- Detail specification in ICAO Annex 3

FNXX01 LFPW 252339

SWX ADVISORY

DTG: 20221025/2321Z

SWXC: ACFJ

ADVISORY NR: 2022/31

SWX EFFECT: **GNSS MOD**

OBS SWX: 25/2245Z EQN EQS W090 - E015

FCST SWX +6 HR: 26/0500Z NOT AVBL

FCST SWX +12 HR: 26/1100Z NOT AVBL

FCST SWX +18 HR: 26/1700Z NOT AVBL

FCST SWX +24 HR: 26/2300Z NOT AVBL

RMK: SWX EVENT (SCINTILLATION) INPR POSSIBLY
IMPACTING GNSS PER.

NXT ADVISORY: WILL BE ISSUED BY 20221026/0521Z=

Example of SWX Advisory Effect Area

FNXX01 EFKL 071058
SWX ADVISORY
DTG: 20221107/1058Z
SWXC: PECASUS
ADVISORY NR: 2022/56
SWX EFFECT: **GNSS SEV**
OBS SWX: 07/1042Z **HNH W015 - E015**
FCST SWX +6 HR: 07/1700Z NOT AVBL
FCST SWX +12 HR: 07/2300Z NOT AVBL
FCST SWX +18 HR: 08/0500Z NOT AVBL
FCST SWX +24 HR: 08/1100Z NOT AVBL
RMK: SPACE WEATHER EVENT (IONOSPHERIC
DISTURBANCE) IN PROGRESS. IMPACT ON GNSS PERFORMANCE
POSSIBLY LEADING TO LOSS OF GNSS SIGNALS AND/OR DEGRADATION
OF TIMING AND POSITIONING PERFORMANCE.
NXT ADVISORY: WILL BE ISSUED BY 20221107/1642Z=

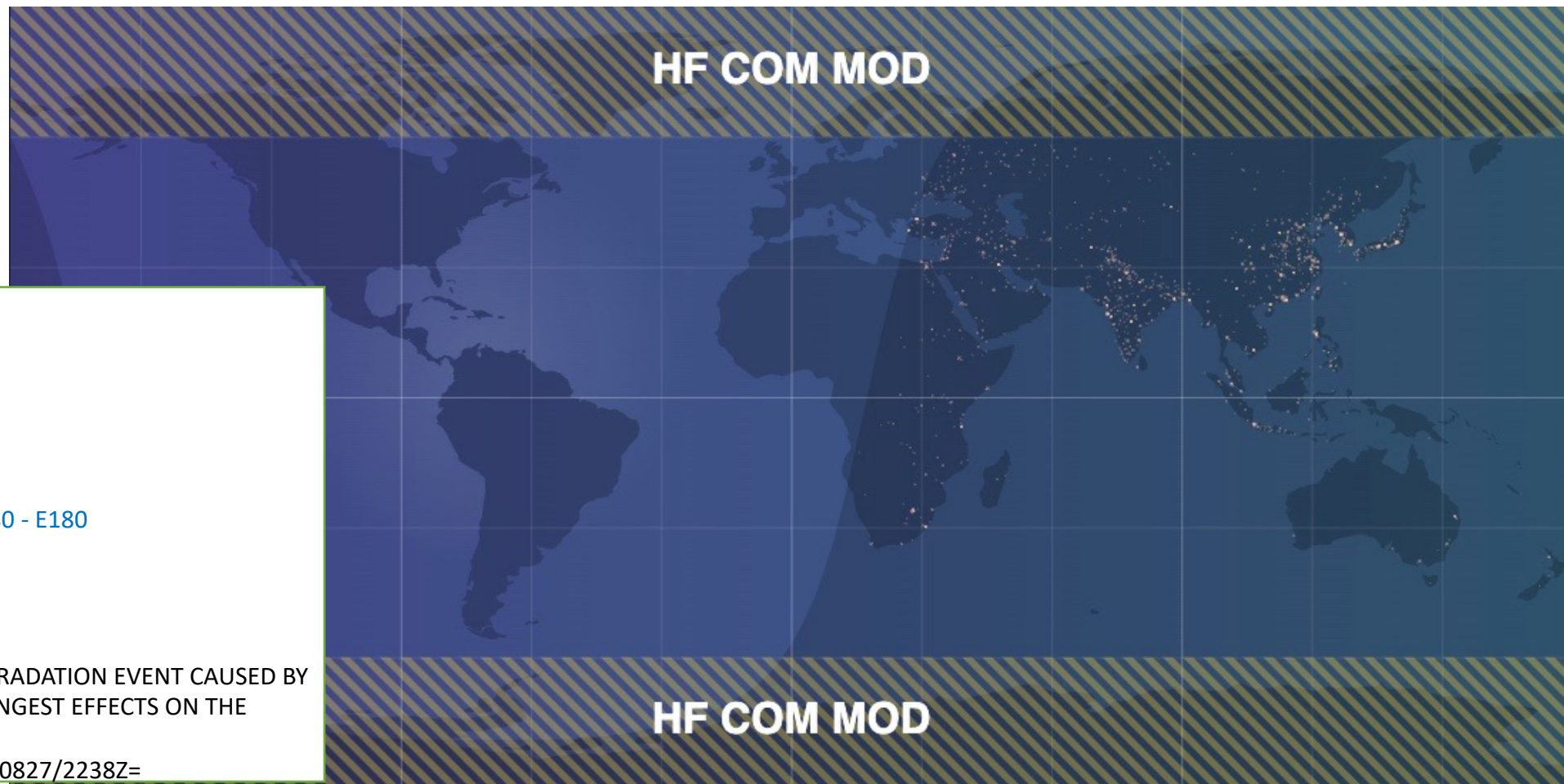


GNSS SEV

A world map with a dark blue background and a grid. A semi-transparent light blue oval highlights a region in the North Atlantic, centered around the British Isles and extending from approximately 15°W to 15°E and 45°N to 65°N. The text 'GNSS SEV' is displayed in white within a semi-transparent brown rectangular box in the upper right portion of the map.

Example of SWX Advisory Effect Area

FNXX02 YMMC 271642
SWX ADVISORY
DTG: 20220827/1642Z
SWXC: ACFJ
ADVISORY NR: 2022/56
NR RPLC: 2022/54
SWX EFFECT: **HF COM MOD**
OBS SWX: 27/1638Z **HNH HSH W180 - E180**
FCST SWX +6 HR: 27/2300Z NOT AVBL
FCST SWX +12 HR: 28/0500Z NOT AVBL
FCST SWX +18 HR: 28/1100Z NOT AVBL
FCST SWX +24 HR: 28/1700Z NOT AVBL
RMK: EVENT UPDATE. HF COM DEGRADATION EVENT CAUSED BY
ABSORPTION IN PROGRESS. STRONGEST EFFECTS ON THE
DAYSIDE.
NXT ADVISORY: WILL BE ISSUED BY 20220827/2238Z=



Example of SWX Advisory Effect Area



GNSS MOD

GNSS MOD

FNXX01 LFPW 252339

SWX ADVISORY

DTG: 20221025/2321Z

SWXC: ACFJ

ADVISORY NR: 2022/31

SWX EFFECT: **GNSS MOD**

OBS SWX: **25/2245Z EQN EQS W090 - E015**

FCST SWX +6 HR: 26/0500Z NOT AVBL

FCST SWX +12 HR: 26/1100Z NOT AVBL

FCST SWX +18 HR: 26/1700Z NOT AVBL

FCST SWX +24 HR: 26/2300Z NOT AVBL

RMK: SWX EVENT (SCINTILLATION) INPR POSSIBLY
IMPACTING GNSS PER.

NXT ADVISORY: WILL BE ISSUED BY 20221026/0521Z=

Example of SWX Advisory Effect Area

FNXX02 KWNP 020625

SWX ADVISORY

DTG:

20221002/0625Z

SWXC:

PECASUS

ADVISORY NR:

2022/84

SWX EFFECT:

HF COM MOD

OBS SWX:

02/0610Z DAYLIGHT SIDE

FCST SWX +6 HR:

02/1200Z NOT AVBL

FCST SWX +12 HR:

02/1800Z NOT AVBL

FCST SWX +18 HR:

03/0000Z NOT AVBL

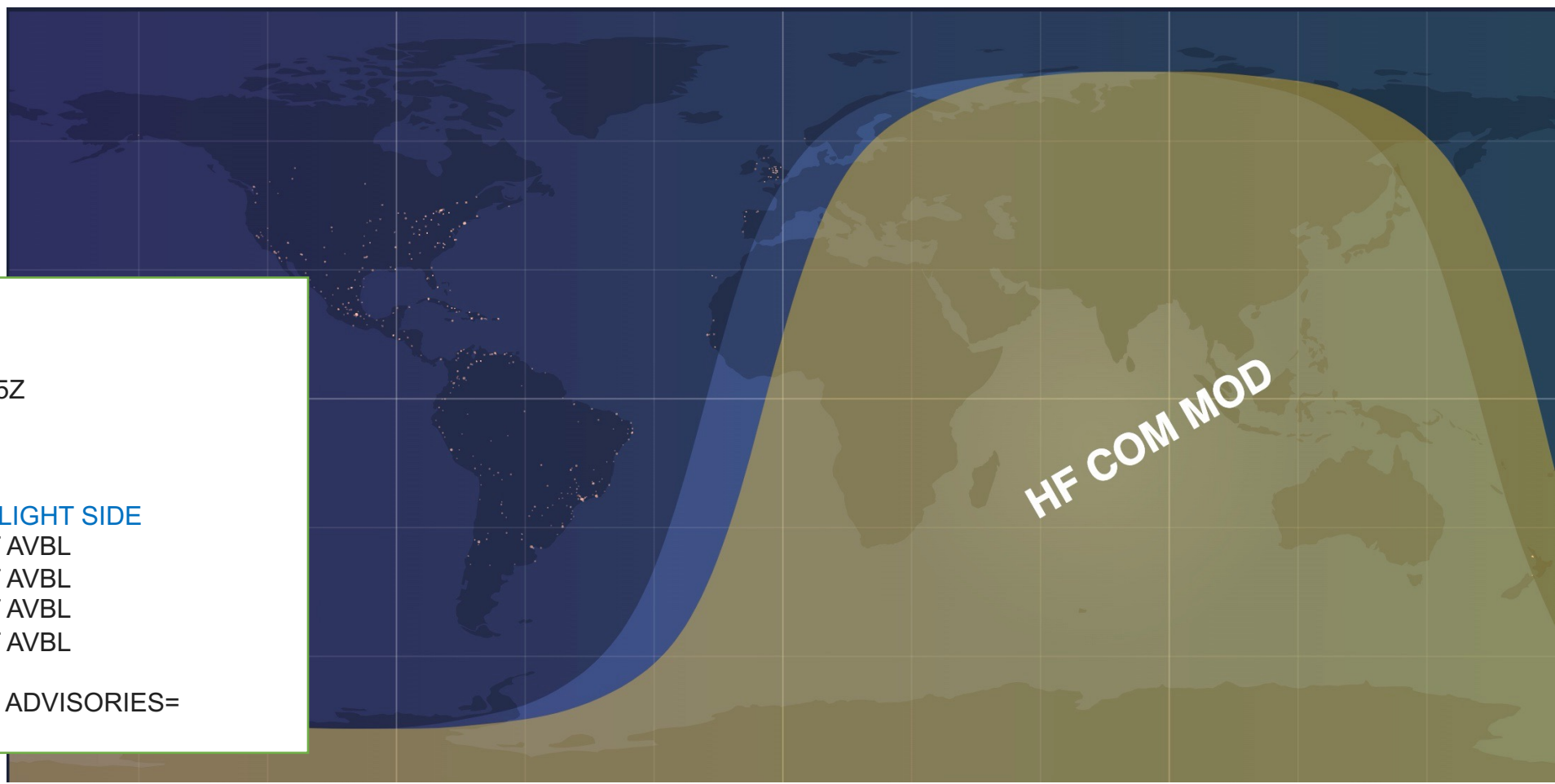
FCST SWX +24 HR:

03/0600Z NOT AVBL

RMK: NONE

NXT ADVISORY:

NO FURTHER ADVISORIES=



Dissemination of SWX Advisories via AFS

WMO message headers

- SWX advisories with different effects (GNSS, HF COM,..) have different WMO headers
- TAC and IWXXM format advisories have different WMO headers
- Every SWX center has own WMO header

	WMO Headers	
	TAC Advisory	IWXXM Advisory
ACFJ – Australia	FNXX01 YMMC	LNXX01 YMMC
ACFJ – France	FNXX01 LFPW	LNXX01 LFPW
PECASUS – Finland	FNXX01 EFKL	LNXX01 EFKL
PECASUS – UK	FNXX01 EGRR	LNXX01 EGRR
CRC – China	FNXX01 ZBBB	LNXX01 ZBBB
CRC – Russia	FNXX01 UUAG	LNXX01 UUAG
SPWC – USA	FNXX01 KWNP	LNXX01 KWNP

01 = GNSS

02 = HF COM

03 = RADIATION

04 = SATCOM

More information of ICAO SWX service



- Specification
 - ICAO Annex 3
 - Manual on Space Weather Information in Support of International Air Navigation” (ICAO Doc 10100)
- WMO message headers
 - <https://www.icao.int/airnavigation/METP/Panel%20Documents/Space%20Weather%20Additional%20Information%20to%20SL%20AN%20101%20–20115.pdf>
- WWW.PECASUS.org
 - [Quick guide to space weather abbreviations in advisories](#)
 - [User’s guide to Space Weather Advisories for Pilots](#)



Approved by and published under the authority of the Secretary General

INTERNATIONAL CIVIL AVIATION ORGANIZATION