

International Civil Aviation Organization



ICAO

WORKING PAPER

Nineteenth Meeting of the Meteorological Information Exchange Working Group (MET/IE WG/19)

Virtual meeting, 22 to 24 March 2021

Agenda Item 3: Monitoring of meteorological information exchange

NEW SPACE WEATHER ADVISORY HEADERS

(Presented by Australia)

SUMMARY

This paper provides a brief update on the provision of Space Weather Advisories and in particular recent changes to WMO headers for these products. The paper also highlights the pending introduction of a fourth global Space Weather Advisory Centre operated by the China-Russian Federation consortium.

1. INTRODUCTION

1.1 The ICAO Space Weather Advisory (SWXA) service is provided 24/7 by the designated ICAO Space Weather Centres (SWXCs), these being the Australia-Canada-France-Japan (ACFJ) consortium, the Pan-European Consortium for Aviation Space weather User Services (PECASUS) and the United States.

1.2 ICAO Council Decision 219-7 designated of the China-Russian Federation consortium (CRC) as a fourth global space weather centre which is likely to commence operations later this year.

1.3 Unlike other advisory services (Volcanic ash and tropical cyclones), each centre operates on a two-week rotational basis and provide global services.

1.4 SWXA's are disseminated through the aeronautical fixed service (AFTN/AMHS), following rules and recommendations from the World Meteorological Organisation (WMO) for transmission of such operational meteorological information including the usage of message headers.

2. DISCUSSION

2.1 Since the introduction of SWXA services (7 November 2019), all SWXA's have been sent with the WMO Message Header (TTAAii) of FNXX01.

2.2 On 5th of November 2020, the WMO message headers (TTAAii CCCC) for Space Weather Advisories in Traditional Alphanumeric Code (TAC) and in ICAO Meteorological Information Exchange Model (IWXXM) were updated to have separate headers for each impact type: GNSS, HF COM, Radiation and SATCOM.

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2.3 The following tables provide information on the new headers:

	WMO headers for advisories on GNSS impact	
	TTAAii CCCC of advisory in TAC	TTAAii CCCC of advisory in IWXXM
ACFJ - Australia	FNXX01 YMMC	LNXX01 YMMC
ACFJ - France	FNXX01 LFPW	LNXX01 LFPW
CRC - China	FNXX01 ZBBB	LNXX01 ZBBB
CRC – Russian Federation	FNXX01 UUAG	LNXX01 UUAG
PECASUS -Finland	FNXX01 EFKL	LNXX01 EFKL
PECASUS – United Kingdom	FNXX01 EGRR	LNXX01 EGRR
USA	FNXX01 KWNP	LNXX01 KWNP

	WMO headers for advisories on HF COM impact	
	TTAAii CCCC of advisory in TAC	TTAAii CCCC of advisory in IWXXM
ACFJ - Australia	FNXX02 YMMC	LNXX02 YMMC
ACFJ - France	FNXX02 LFPW	LNXX02 LFPW
CRC - China	FNXX02 ZBBB	LNXX02 ZBBB
CRC – Russian Federation	FNXX02 UUAG	LNXX02 UUAG
PECASUS - Finland	FNXX02 EFKL	LNXX02 EFKL
PECASUS – United Kingdom	FNXX02 EGRR	LNXX02 EGRR
USA	FNXX02 KWNP	LNXX02 KWNP

	WMO headers for advisories on RADIATION impact	
	TTAAii CCCC of advisory in TAC	TTAAii CCCC of advisory in IWXXM
ACFJ - Australia	FNXX03 YMMC	LNXX03 YMMC
ACFJ - France	FNXX03 LFPW	LNXX03 LFPW
CRC - China	FNXX03 ZBBB	LNXX03 ZBBB
CRC – Russian Federation	FNXX03 UUAG	LNXX03 UUAG
PECASUS - Finland	FNXX03 EFKL	LNXX03 EFKL
PECASUS – United Kingdom	FNXX03 EGRR	LNXX03 EGRR
USA	FNXX03 KWNP	LNXX03 KWNP

	WMO headers for advisories on SATCOM impact	
	TTAAii CCCC of advisory in TAC	TTAAii CCCC of advisory in IWXXM
ACFJ - Australia	FNXX04 YMMC	LNXX04 YMMC
ACFJ - France	FNXX04 LFPW	LNXX04 LFPW
CRC - China	FNXX04 ZBBB	LNXX04 ZBBB
CRC – Russian Federation	FNXX04 UUAG	LNXX04 UUAG
PECASUS - Finland	FNXX04 EFKL	LNXX04 EFKL
PECASUS – United Kingdom	FNXX04 EGRR	LNXX04 EGRR
USA	FNXX04 KWNP	LNXX04 KWNP

2.4 Prior to commencement of these new headers, Australia issued a MET Notification (METNO) advising of their introduction.

2.5 The ROBEX Handbook requires an update to reflect these new headers.

2.6 Since commencing operations, the global SWXCs have issued a series of TEST messages designed to test the dissemination of Space Weather Advisories (SWXA) through the AFTN/AMHS. This testing program will continue through 2021. Australia wants to thank the AsiaPAC RODBs for assisting with collating details on received SWXAs and their dissemination.

3. ACTION BY THE MEETING

- 3.1 The meeting is invited to:
- a. Note the information contained in this paper; and
 - b. Request the Secretariat include these updates within the ROBEX Handbook.
