

**Section 1**

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**Appendix A**

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## Appendix E

# Details of NASR-to-EAD Mapping

This volume contains the detailed mapping table from the analysis described in the MITRE Technical Report, “Aeronautical Data Exchange From NASR to Eurocontrol’s EAD”, document number MTR02W072. The mapping consists of a spreadsheet, arranged alphabetically by AIXM attribute within AIXM entity, for the entire AIXM data structure. The essence of the mapping is a set of rules that convert data in NASR to equivalent data in AIXM, where feasible.

There are more rows than AIXM attributes since an AIXM attribute may require a mapping from more than one NASR attribute. For example, if AIXM defined an airport manager's name as a single field and NASR defined this information as three fields, i.e., last name, first name, and middle initial, there would be a 3:1 mapping and three rows in the mapping table. The mapping contents are presented as a Microsoft Word table.

### NASR to EAD Mapping

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
AD_HP	CODE_TYPE	M	AIRPORT	SITE_TYPE_CODE	y	if = 'H' map 'HP'; else map 'AD' (see rule in 'nasr coordinates.doc')	AIXM: AD (aerodrome only); HP (heliport only). NASR: A (airport), B (balloonport); G (glider), H (heliport), S (stolport), U (ultralight)
AD_HP	CODE_IFR	O			n		Code indicating aircraft permitted to use aerodrome/heliport should observe IFR
AD_HP	TXT_NAME_ADMIN	O	AIRPORT_CONTACT	? TITLE	y	Concatenate TITLE, NAME	n: TITLE missing from new NASR
AD_HP	TXT_NAME_ADMIN	O	AIRPORT_CONTACT	NAME	y	See AIRPORT_CONTACT.TITLE	
AD_HP	TXT_NAME_CITY_SER	O	AIRPORT	CITY	y	Direct Map	
AD_HP	TXT_RMK_WORK_HR	O	AIRPORT_ATTEND_SCHEDULED	HOUR	y	Direct map	
AD_HP	UOM_DIST_VER	O			y	Map 'FT'	M (meters); FL (flight level -- 100s of feet); SM (standard meters -- 10s of meters); FT (feet)
AD_HP	VAL_ELEV	O	AIRPORT	ELEV	y	Direct Map. UOM_DIST_VER = 'FT'	

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
AD_HP	VAL_ELEV_ACCURACY	O	AIRPORT	ELEV_METHOD_CODE	y	If = 'E', map 75. If = 'S' map 25. UOM_DIST_VER = 'FT'	??NASR estimated/surveyed. AIXM gives accuracy in feet. Define threshold for surveyed/estimated. Need to take into account UOM.
AD_HP	VAL_MAG_VAR	O	AIRPORT	MAG_VARN	y	Concatenate MAG_VARN, MAG_HEMIS	NASR: between 0 and 50
AD_HP	VAL_MAG_VAR	O	AIRPORT	MAG_HEMIS	y	See AIRPORT.MAG_VARN	NASR: 'E' or 'W'. AIXM def. ambiguous -- type is number, but description sounds like character (dddE/W)
AD_HP	DT_WEF	P	AIRPORT		y	Use system date. Convert from date format to yyyy-mm-dd hh:mm	
AD_HP	TXT_DESCR_SITE	O	AIRPORT	DIRECTION_CODE	y	See AIRPORT.DIST	
AD_HP	CODE_WORK_HR	M	AIRPORT_ATTENDED	HOUR	y	Map 'HX'	H24 = continuous; HJ = sunrise to sunset; HN = sunset-sunrise; HX = no specific; HO = meet operations; NOTAM = published by NOTAM; TIMSH = specified in TIMESHEET. NASR: free-format field



AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
AD_HP	TXT_DESCR_SITE	O	AIRPORT	DIST	y	Concatenate "DIST: " + DIST + "Direction: " + DIRECTION_CODE	AIXM: Site direction/DIST from airport
AD_HP	GEO_LAT	M	AIRPORT	LAT_DEG	y	Convert LAT_DEG, LAT_MIN, LAT_SEC to char. Concatenate LAT_DEG, LAT_MIN, LAT_SEC, LAT_HEMIS	
AD_HP	GEO_LAT	M	AIRPORT	LAT_MIN	y	See AIRPORT.LAT_DEG	
AD_HP	GEO_LAT	M	AIRPORT	LAT_SEC	y	See AIRPORT.LAT_DEG	
AD_HP	DT_TIL	M	AIRPORT	DELETE_DATE	y	If null, use system date + 120. In either case, convert from date format to yyyy-mm-dd hh:mm	
AD_HP	GEO_LAT	M	AIRPORT	LAT_HEMIS	y	See AIRPORT.LAT_DEG	
AD_HP	GEO_LONG	M	AIRPORT	LONG_DEG	y	Convert LONG_DEG, LONG_MIN, LONG_SEC to char. Concatenate LONG_DEG, LONG_MIN, LONG_SEC, LONG_HEMIS	
AD_HP	GEO_LONG	M	AIRPORT	LONG_MIN	y	See AIRPORT.LONG_DEG	
AD_HP	GEO_LONG	M	AIRPORT	LONG_SEC	y	See AIRPORT.LONG_DEG	
AD_HP	GEO_LONG	M	AIRPORT	LONG_HEMIS	y	See AIRPORT.LONG_DEG	

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
AD_HP	TXT_NAME	M	AIRPORT	ARPT_NAME	y	Direct map	
AD_HP	CODE_IATA	O			n		
AD_HP							Map through ARPT_ID_LOOKUP to link AD_HP_M.CODE_ID to NASR AIRPORT.ARPT_SEQ_NO, AIRPORT_ATTEND_SCHEDULE.ARPT_SEQ_NO, AIRPORT_CONTACT.ARPT_SEQ_NO
AD_HP	VAL_REF_T	O			n		Reference temperature
AD_HP	CODE_PRIV	O	AIRPORT	FACILITY_USE_CODE	n		Private does not appear to map to GA, according to Holger
AD_HP	TXT_DESCR_ACL	O			n		altimeter check locations
AD_HP	TXT_DESCR_LDI	O			n		
AD_HP	TXT_DESCR_SRY_PWR	O			n		
AD_HP	TXT_RMK	O			n		
AD_HP	TXT_VER_DATUM	O			n		

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
AD_HP	UOM_GEO_ACCURACY	O			n		Units of measure for geo accuracy
AD_HP	UOM_REF_T	O			n		Units of measure for reference temperature
AD_HP	UOM_TRANSITION_ALT	O			n		Units of measure for transition altitude
AD_HP	VAL_CRC	O			n		
AD_HP	VAL_GEO_ACCURACY	O			n		
AD_HP	TXT_DESCR_WDI	O	AIRPORT	WIND_INDCR_FLAG	y	If = 'Y' map 'exists'	AIXM wind direction indicator includes WDI position
AD_HP	VAL_MAG_VAR_CHG	O			n		Rate of change of magnetic variation
AD_HP	VAL_TRANSITION_ALT	O			n		Value of transition altitude
AD_HP	CODE_DATUM	O			y	Map 'WGS 84'	WGS 84; ED 50; KRASOVSKY
AD_HP	CODE_ICAO	O	AIRPORT	ICAO_ID	y	Direct map	Why are these different lengths?
AD_HP	CODE_INTL_TFC	O	AIRPORT	CUST_FLAG	y	Direct Map	Is this really the same thing?
AD_HP	CODE_NATIONAL_TFC	O	AIRPORT	FACILITY_USE_CODE	y	if = 'PU' map 'Y'	PU = public ownership. Map "PR" if = "N"?

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
AD_HP	CODE_NON_SKED	O	AIRPORT	FACILITY_USE_CODE	y	if = 'PU' map 'Y'	non-scheduled = air taxi?
AD_HP	CODE_SKED	O	AIRPORT	FACILITY_USE_CODE	y	if = 'PU' map 'Y'	scheduled
AD_HP	CODE_TYPE_MIL_OPS	O	AIRPORT	JOINT_USE_FLAG	y	if = 'Y' map 'JOINT'	JOINT, MIL, MIL+ (mil + civil ops allowed)
AD_HP	CODE_VFR	O	AIRPORT	VFR_PVT_ONLY_FLAG	y	Direct map	Are these equivalent?
AD_HP	DATE_MAG_VAR	O	AIRPORT	MAG_VARN_YEAR	y	Convert from number format to date format	
AD_HP	TXT_DESCR_REF_PT	O	AIRPORT	GND_PSN_SOURCE_CODE	y	if = 'A', map 'Source is Air Force'; if = 'C', map 'Source is Coast Guard'; if = 'L', map 'Source is LORAN'; if = 'M', map 'Source is DMAAC'	NASR value is source of ground position point. 'G' = ?? . AIXM value is textual description of reference point.
AD_HP	VAL_GEOID_UNDULATION	O			n		
AD_HP_ADDRESS	TXT_ADDRESS	M	AIRPORT_CONTACT	ZIP_CODE	y	See AIRPORT_CONTACT.ADDRESS1	
AD_HP_ADDRESS	DT_TIL	M	AIRPORT_CONTACT	DELETE_DATE	y	If null use system date + 120 days. In either case, convert from date format to yyyy-mm-dd hh:mm	

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
AD_HP_ADDRESS	TXT_ADDRESS	M	AIRPORT_CONTACT	STATE	y	See NASR AIRPORT_CONTACT.ADDRESS1	
AD_HP_ADDRESS	TXT_RMK	O	AIRPORT_REMARK	REMARK	y		
AD_HP_ADDRESS	DT_WEF	P			y	Use system date. Convert from date format to yyyy-mm-dd hh:mm	
AD_HP_ADDRESS							Map through ARPT_ID_LOOKUP to link AD_HP_M.CODE_ID to NASR.AIRPORT_CONTACT.ARPT_SEQ_NO
AD_HP_ADDRESS	TXT_ADDRESS	M	AIRPORT_CONTACT	PHONE_NO	y	Direct map. AD_HP_ADDRESS.CODE_TYPE = 'PHONE'	In AIXM, separate records need to be created for each type of address.
AD_HP_ADDRESS	TXT_ADDRESS	M	AIRPORT_CONTACT	CITY	y	See NASR AIRPORT_CONTACT.ADDRESS1	
AD_HP_ADDRESS	TXT_ADDRESS	M	AIRPORT_CONTACT	ADDRESS1	y	Concatenate ADDRESS1, ADDRESS2, CITY, STATE, ZIP_CODE. AD_HP_ADDRESS.CODE_TYPE = 'POST'	In AIXM, separate records need to be created for each type of address.

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
AD_HP_ADDRESS	TXT_ADDRESS	M	AIRPORT_CONTACT	ADDRESS2	y	See NASR AIRPORT_CONTACT.ADDRESS1	Will lose some information
AD_HP_ADDRESS_M	CODE_TYPE	P	AIRPORT_CONTACT	PHONE_NO	y	If not NULL or not blank, map 'PHONE'	POST (postal address), PHONE, FAX, TLX, AFS (AFTN), SITA, EMAIL, URL
AD_HP_ADDRESS_M	CODE_TYPE	P	AIRPORT_CONTACT	ADDRESS1	y	If not NULL or not blank, map 'POST'	POST (postal address), PHONE, FAX, TLX, AFS (AFTN), SITA, EMAIL, URL
AD_HP_ADDRESS_M	NO_SEQ	P			y	AIXM creates a sequential number	
AD_HP_ADDRESS_M							
AD_HP_COLLOCATION	CODE_TYPE	M			n		F (full), P (partial), R (share RWY/TWY)
AD_HP_COLLOCATION	DT_TIL	M			n		
AD_HP_COLLOCATION	TXT_DESCR	O			n		
AD_HP_COLLOCATION	TXT_RMK	O			n		
AD_HP_COLLOCATION	DT_WEF	P			n		

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
AD_HP_COLLOCATION							No collocation info available in NASR. Use COLLOCATED_APT_RM K, COLLOCATED_APT_RM K_ASSOC tables.
AD_HP_COLLOCATION_M							key migration from AD_HP_M
AD_HP_GND_SER							Map through ARPT_ID_LOOKUP to link AD_HP_M.CODE_ID to NASR.AIRPORT.ARPT_SEQ_NO, NASR.AIRPORT_SERVICE.ARPT_SEQ_NO
AD_HP_GND_SER	DT_TIL	M	AIRPORT	DELETE_DATE	y	If null use system date + 120 days. In either case, convert from date format to yyyy-mm-dd hh:mm	Map to NASR.AIRPORT from AD_HP
AD_HP_GND_SER	TXT_DESCR_FAC	O			n		
AD_HP_GND_SER	TXT_RMK_WORK_HR	O			n		

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
AD_HP_GND_SER	CODE_CAT	O	AIRPORT	FAR_139_TYPE_CODE	y	If AIRPORT.SITE_TYPE_CODE < "H" or not null Map '1'. Else map 'H1'	AIXM: Aircraft rescue and fire cats 1-9 (values 1, 2, 3, 4, 5, 6, 7, 8, 9); Helicopter rescue and fire categories 1-3 (values H1, H2, H3). NASR values are A, AA, B, C, D, E, L (limited)
AD_HP_GND_SER	TXT_RMK	O	AIRPORT_SERVICE	SERVICE_TYPE_CODE	y	Direct Map	NASR: AGRI, AMB (air ambulance); AVNCS (avionics); BCHGR (beaching gear); CARGO (cargo handling); INSTR (pilot instruction); CHTR (charter); GLD (glider); PAJA (parachute jump); RNTL (aircraft rental); SALES; SURV ; TOW (glider tow)
AD_HP_GND_SER	DT_WEF	P			y	Use system date. Convert from date format to yyyy-mm-dd hh:mm	



AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
AD_HP_GND_SER	CODE_WORK_HR	M	AIRPORT_ATTEND_SCH ED	HOUR	y	Map 'HX'	AIXM: H24 = continuous; HJ = sunrise to sunset; HS = sunset-sunrise; HX = no specific; HO = meet opl rqrmts; NOTAM = published by NOTAM; TIMSH = specified in TIMESHEET. NASR AIRPORT_ATTEND_SCH ED has free-format fields
AD_HP_GND_SER_ADDR ESS	TXT_ADDRESS	M	AIRPORT_CONTACT	ADDRESS1	y	Concatenate AIRPORT_CONTACT.TITLE, ADDRESS1, ADDRESS2, CITY, STATE, ZIP_CODE. AD_HP_GND_SER_ADDRE SS.CODE_TYPE = "POST"	
AD_HP_GND_SER_ADDR ESS							Map through ARPT_ID_LOOKUP to link AD_HP_M.CODE_ID to NASR.AIRPORT_CONTA CT.ARPT_SEQ_NO
AD_HP_GND_SER_ADDR ESS	DT_WEF	P			y	Use system date. Convert from date format to yyyy-mm- dd hh:mm	
AD_HP_GND_SER_ADDR ESS	TXT_RMK	O			n		

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
AD_HP_GND_SER_ADDR ESS	TXT_ADDRESS	M	AIRPORT_CONTACT	PHONE_NO	y	Direct map. AD_HP_GND_SER_ADDRES.CODE_TYPE = 'PHONE'.	
AD_HP_GND_SER_ADDR ESS	DT_TIL	M	AIRPORT_CONTACT	DELETE_DATE	y	If null use system date + 120 days. In either case, convert from date format to yyyy-mm-dd hh:mm	
AD_HP_GND_SER_ADDR ESS	TXT_ADDRESS	M	AIRPORT_CONTACT	ADDRESS2	y	See NASR AIRPORT_CONTACT.ADDRESS1	
AD_HP_GND_SER_ADDR ESS_M	CODE_TYPE	P	AIRPORT_CONTACT	ADDRESS1	y	If not NULL or not blank, map 'POST'	POST (postal address), PHONE, FAX, TLX, AFS (AFTN), SITA, EMAIL, URL.
AD_HP_GND_SER_ADDR ESS_M	CODE_TYPE	P	AIRPORT_CONTACT	PHONE_NO	y	If not NULL or not blank, map 'PHONE'	POST (postal address), PHONE, FAX, TLX, AFS (AFTN), SITA, EMAIL, URL.
AD_HP_GND_SER_ADDR ESS_M							
AD_HP_GND_SER_ADDR ESS_M	NO_SEQ	P			y	AIXM creates a sequential number	

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
AD_HP_GND_SER_M	CODE_TYPE	P	AIRPORT_SERVICE	SERVICE_TYPE_CODE	y	If = 'CARGO', map 'hand'	NASR: AGRI, AMB (air ambulance); AVNCS (avionics); BCHGR (beaching gear); CARGO (cargo handling); INSTR (pilot instruction); CHTR (charter); GLD (glider); PAJA (parachute jump); RNTL (aircraft rental); SALES; SURV ; TOW (glider tow)
AD_HP_GND_SER_M							map through ARPT_ID_LOOKUP to link AD_HP_M.CODE_ID to NASR AIRPORT.ARPT_SEQ_NO, FUEL_TYPE.ARPT_SEQ_NO, AIRPORT_SERVICE.ARP_T_SEQ_NO, TRANSIENT_STORAGE.ARPT_SEQ_NO
AD_HP_GND_SER_M	CODE_TYPE	P	AIRPORT	FAR_139_TYPE_CODE	y	Map 'fire'	NASR: A, AA, B, C, D, E, L (Limited)
AD_HP_GND_SER_M	CODE_TYPE	P	AIRPORT	CUST_FLAG	y	If = 'Y,' map 'cust'	

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
AD_HP_GND_SER_M	CODE_TYPE	P	AIRPORT	TRNS_STRG_TIE_F LG	y	If = "Y", map 'SECUR'	
AD_HP_GND_SER_M	CODE_TYPE	P	AIRPORT	AIRFRAME_REPAIR _SER_CODE	y	If <> NONE or not null, map 'repair'	AIXM: clear, fire, cust, san, repair, de-ice, hangar, fuel, hand, security, vet. NASR: MAJOR, MINOR, NONE
AD_HP_GND_SER_M	CODE_TYPE	P	AIRPORT	PWR_PLANT_REPAI R_SER	y	If <> NONE or not null, map 'repair'	
AD_HP_GND_SER_M	CODE_TYPE	P	AIRPORT	TWR_TYPE_CODE	y		
AD_HP_GND_SER_M	CODE_TYPE	P	AIRPORT	ASOS_AWOS_TYPE	y		
AD_HP_GND_SER_M	CODE_TYPE	P	AIRPORT	TRNS_STRG_HGR_ FLG	y	If = "HGR," map 'hangar'	HGR:Enclosed aircraft parking FACILITY (conventional or T-hangar)
AD_HP_GND_SER_M	CODE_TYPE	P	FUEL_TYPE	FUEL_TYPE	y	If not null or not blank, map 'fuel'	
AD_HP_GND_SER_TIME SHEET	CODE_TIME_REF	M			y	Assume all times are converted to UTC and CODE_TIME_REF = "UTC".	
AD_HP_GND_SER_TIME SHEET	CODE_DAY_TIL	O	AIRPORT_ATTEND_SCH ED	STRING(DAY)	y	Default CODE_DAY_TIL = "SUN" for continuous ops.	

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
AD_HP_GND_SER_TIME SHEET							NASR does not include. Map from NASR AIRPORT_ATTEND_SCHEDULED, but not to it.
AD_HP_GND_SER_TIME SHEET	TIME_WEF	P	AIRPORT_ATTEND_SCHEDULED	HOUR	y		
AD_HP_GND_SER_TIME SHEET	DATE_VALID_WEF	P			y	Map system date (yyyy-mm-dd hh:mm format)	
AD_HP_GND_SER_TIME SHEET	CODE_DAY	P	AIRPORT_ATTEND_SCHEDULED	STRING(DAY)	y	Default CODE_DAY_TIL = "MON" for continuous ops.	
AD_HP_GND_SER_TIME SHEET	CODE_EVENT_WEF	P			n		Assuming NASR does not use event (sunrise, sunset).
AD_HP_GND_SER_TIME SHEET	TIME_TIL	O	AIRPORT_ATTEND_SCHEDULED	HOUR	y		
AD_HP_GND_SER_TIME SHEET	TIME_REL_EVENT_WEF	O			n		Assuming NASR does not use event (sunrise, sunset).
AD_HP_GND_SER_TIME SHEET	TIME_REL_EVENT_WEF	O			n		Assuming NASR does not use event (sunrise, sunset).
AD_HP_GND_SER_TIME SHEET	TIME_REL_EVENT_TIL	O			n		Assuming NASR does not use event (sunrise, sunset).

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
AD_HP_GND_SER_TIME SHEET	CODE_EVENT_TIL	O			n		Assuming NASR does not use event (sunrise, sunset).
AD_HP_GND_SER_TIME SHEET	CODE_COMB_WEF	O			n		Assuming NASR does not use event (sunrise, sunset).
AD_HP_GND_SER_TIME SHEET	DATE_VALID_TIL	M	AIRPORT_ATTEND_SCH ED	DELETE_DATE	y	If null, use system date. In either case, convert from date format to yyyy-mm-dd hh:mm	
AD_HP_GND_SER_TIME SHEET	CODE_COMB_TIL	O			n		Assuming NASR does not use event (sunrise, sunset).
AD_HP_M	CODE_ID	P	AIRPORT	ARPT_ID	y	If AIRPORT.ICAO_ID null or blank, map ARPT_ID, else map ICAO_ID	
AD_HP_OBSTACLE							NASR has only RWY END OBSTACLE.
AD_HP_OBSTACLE	DT_WEF	P			n		
AD_HP_OBSTACLE	TXT_RMK	O			n		
AD_HP_OBSTACLE	DT_TIL	M			n		
AD_HP_OBSTACLE_M							

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
AD_HP_TIMESHEET	CODE_DAY	P	AIRPORT_ATTEND_SCHEDULE	STRING(DAY)	y	Default CODE_DAY = "MON" for continuous ops.	
AD_HP_TIMESHEET							Map through ARPT_ID_LOOKUP to link AD_HP_M.CODE_ID to NASR AIRPORT.ARPT_SEQ_NO, AIRPORT_ATTEND_SCHEDULE.ARPT_SEQ_NO
AD_HP_TIMESHEET	DATE_VALID_WEF	P			y	Map system date (yyyy-mm-dd hh:mm format)	
AD_HP_TIMESHEET	CODE_EVENT_WEF	P			n		Assuming NASR does not use event (sunrise, sunset).
AD_HP_TIMESHEET	TIME_TIL	O	AIRPORT_ATTEND_SCHEDULE	HOUR	y		AIXM includes hour & minutes. NASR does not have minutes.
AD_HP_TIMESHEET	CODE_DAY_TIL	O	AIRPORT_ATTEND_SCHEDULE	STRING(DAY)	y	Default CODE_DAY_TIL = "MON" for continuous ops.	
AD_HP_TIMESHEET	TIME_REL_EVENT_TIL	O			n		Assuming NASR does not use event (sunrise, sunset).

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
AD_HP_TIMESHEET	CODE_EVENT_TIL	O			n		Assuming NASR does not use event (sunrise, sunset).
AD_HP_TIMESHEET	CODE_COMB_WEF	O			n		Assuming NASR does not use event (sunrise, sunset).
AD_HP_TIMESHEET	CODE_COMB_TIL	O			n		Assuming NASR does not use event (sunrise, sunset).
AD_HP_TIMESHEET	DATE_VALID_TIL	M	AIRPORT_ATTEND_SCH ED	DELETE_DATE	y	If null, use system date. In either case, convert from date format to yyyy-mm-dd hh:mm	
AD_HP_TIMESHEET	CODE_TIME_REF	M			y	Assume all times are converted to UTC and CODE_TIME_REF = "UTC".	
AD_HP_TIMESHEET	TIME_REL_EVENT_WEF	O			n		Assuming NASR does not use event (sunrise, sunset).
AD_HP_TIMESHEET	TIME_WEF	P	AIRPORT_ATTEND_SCH ED	HOUR	y		AIXM includes hour & minutes. NASR does not have minutes.



AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
AERO_GND_LGT							AGL may not correspond to an airport. If AERO_GND_LGT.AD_HP_M.CODE_ID not blank or null, map to NASR AIRPORT, APT_AGL_RMK entities. Else, map to AGL_RMK. Mapping from NASR to AIXM will always be an airport AGL.
AERO_GND_LGT	UOM_GEO_ACCURACY	O			n		KM (kilometers); M (meters); FT (feet); NM (nautical miles)
AERO_GND_LGT	VAL_ELEV	O			n		000-99999 from MSL
AERO_GND_LGT	VAL_ELEV_ACCURACY	O			n		000-99999
AERO_GND_LGT	VAL_GEO_ACCURACY	O			n		Horizontal DIST from stated geo position of AGL within which there is a defined confidence of the true position falling

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
AERO_GND_LGT	VAL_GEOID_UNDULATION	O			n		000-99999. DIST separating the geoid and ellipsoid at that position. WRT WGS-84 datum, the difference between the WGS-84 ellipsoidal height and geoidal height represents geoidal undulation
AERO_GND_LGT	TXT_DESCR_CHARACTER	O	AIRPORT	BCN_LENS_COLOR	y	If = 'CG' map 'clear and green'; if = 'CGY' map 'clear, green, and yellow'; if = 'CY' map 'clear & yellow'; if = 'G' map 'green only'; if = 'SCG' map 'split clear and green'; if = 'Y' map 'yellow only'	AIXM: Text descrip. of the characteristics of the AGL, its color, flash duration, etc. e.g., FLG W EV 10 SEC. NASR codes: CG (clear & green), CGY (Clear, green & yellow), CY (clear & yellow), G (green), SCG (split clear & green), Y (yellow)
AERO_GND_LGT	TXT_RMK_WORK_HR	O	AIRPORT	LGT_SKED	y	Direct map	Will probably los some infomration
AERO_GND_LGT	DT_WEF	P			y	Use system date. Convert from date format to yyyy-mm-dd hh:mm	

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
AERO_GND_LGT	GEO_LAT	M	AIRPORT	LAT_DEG	y	Convert LAT_DEG, LAT_MIN, LAT_SEC to character. Concatenate LAT_DEG, LAT_MIN, LAT_SEC, LAT_HEMIS	
AERO_GND_LGT	TXT_RMK	O			n		
AERO_GND_LGT	UOM_DIST_VER	O			y	Map 'FT'	M (meters); FL (flight level -- 100s of feet); SM (standard meters -- 10s of meters); FT (feet)
AERO_GND_LGT	CODE_WORK_HR	M	AIRPORT	BCN_LGT_SKED	y	Map 'HX'	
AERO_GND_LGT	GEO_LONG	M	AIRPORT	LONG_HEMIS	y	Convert LONG_DEG, LONG_MIN, LONG_SEC to character Concatenate LONG_DEG, LONG_MIN, LONG_SEC, LONG_HEMIS	
AERO_GND_LGT	CODE_WORK_HR	M	AIRPORT	LGT_SKED	y	Map 'HX'	H24 (continuous); HJ (sunrise-sunset); HN (sunset-sunrise); HX (no specific); HO (meet opl requests); NOTAM (published by NOTAM); TIMSH (specified in related timesheet). Does NASR LGT_SKED refer to RWY lights?

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
AERO_GND_LGT	DT_TIL	M	AIRPORT	DELETE_DATE	y	If null use system date + 120. In either case, convert from date format to yyyy-mm-dd hh:mm	
AERO_GND_LGT	GEO_LAT	M	AIRPORT	LAT_SEC	y	Convert LAT_DEG, LAT_MIN, LAT_SEC to character. Concatenate LAT_DEG, LAT_MIN, LAT_SEC, LAT_HEMIS	
AERO_GND_LGT	GEO_LAT	M	AIRPORT	LAT_MIN	y	Convert LAT_DEG, LAT_MIN, LAT_SEC to character. Concatenate LAT_DEG, LAT_MIN, LAT_SEC, LAT_HEMIS	
AERO_GND_LGT	CODE_DATUM	M			y	Map 'WGS 84'	WGS 84; ED 50; KRASOVSKY
AERO_GND_LGT	GEO_LAT	M	AIRPORT	LAT_HEMIS	y	Convert LAT_DEG, LAT_MIN, LAT_SEC to character. Concatenate LAT_DEG, LAT_MIN, LAT_SEC, LAT_HEMIS	
AERO_GND_LGT	GEO_LONG	M	AIRPORT	LONG_DEG	y	Convert LONG_DEG, LONG_MIN, LONG_SEC to character Concatenate LONG_DEG, LONG_MIN, LONG_SEC, LONG_HEMIS	

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
AERO_GND_LGT	GEO_LONG	M	AIRPORT	LONG_MIN	y	Convert LONG_DEG, LONG_MIN, LONG_SEC to character Concatenate LONG_DEG, LONG_MIN, LONG_SEC, LONG_HEMIS	
AERO_GND_LGT	GEO_LONG	M	AIRPORT	LONG_SEC	y	Convert LONG_DEG, LONG_MIN, LONG_SEC to character Concatenate LONG_DEG, LONG_MIN, LONG_SEC, LONG_HEMIS	
AERO_GND_LGT_M	TXT_NAME	P	AIRPORT	ARPT_ID	y	If AIRPORT.ICAO_ID null or blank, map ARPT_ID, else map ICAO_ID	AGLs marking the site of an aerodrome/heliport have the name of the aerodrome/heliport.
AERO_GND_LGT_M							AGL may not correspond to an airport. If AERO_GND_LGT.AD_HP_M.CODE_ID not blank or null, map to NASR AIRPORT, APT_AGL_RMK entities. Else, map to AGL_RMK. Mapping from NASR to AIXM will always be an airport AGL.

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
AERO_GND_LGT_M	CODE_TYPE	P	AIRPORT	BCN_LGT_SCHEDULE	y	If AIRPORT.SITE_TYPE_CODE = "H" and AIRPORT.BCN_LGT_SCHEDULE not blank map "HBCN"; else map "ABN"	RES (responder beacon); SIG (control tower signalling beacon); BCN (beacon); IBN (identification beacon); ABN (Aerodrome beacon); HBCN (heliport beacon); MARINE (marine beacon)
AERO_GND_LGT_TIMESHEET	TIME_REL_EVENT_WEEK	O			n		Assuming NASR does not use event (sunrise, sunset).
AERO_GND_LGT_TIMESHEET	CODE_DAY_TIL	O	AIRPORT_ATTEND_SCHEDULE	STRING(DAY)	y	Default CODE_DAY_TIL = "MON" for continuous ops.	
AERO_GND_LGT_TIMESHEET							
AERO_GND_LGT_TIMESHEET	TIME_WEF	P	AIRPORT	LGT_SKED	y		NASR doesn't have minutes.
AERO_GND_LGT_TIMESHEET	DATE_VALID_WEF	P	AIRPORT_ATTEND_SCHEDULE		y	Map system date (yyyy-mm-dd hh:mm format)	
AERO_GND_LGT_TIMESHEET	CODE_DAY	P	AIRPORT_ATTEND_SCHEDULE	STRING(DAY)	y	Default CODE_DAY = "MON" for continuous ops.	
AERO_GND_LGT_TIMESHEET	CODE_EVENT_WEEK	P			n		Assuming NASR does not use event (sunrise, sunset).

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
AERO_GND_LGT_TIMES HEET	CODE_TIME_REF	M			y	Assume all times are converted to UTC and CODE_TIME_REF = "UTC".	
AERO_GND_LGT_TIMES HEET	TIME_TIL	O	AIRPORT	LGT_SKED	y		NASR doesn't have minutes.
AERO_GND_LGT_TIMES HEET	TIME_REL_EVENT_TIL	O			n		Assuming NASR does not use event (sunrise, sunset).
AERO_GND_LGT_TIMES HEET	CODE_EVENT_TIL	O			n		Assuming NASR does not use event (sunrise, sunset).
AERO_GND_LGT_TIMES HEET	CODE_COMB_WEF	O			n		Assuming NASR does not use event (sunrise, sunset).
AERO_GND_LGT_TIMES HEET	CODE_COMB_TIL	O			n		Assuming NASR does not use event (sunrise, sunset).
AERO_GND_LGT_TIMES HEET	DATE_VALID_TIL	M	AIRPORT_ATTEND_SCH ED	DELETE_DATE	y	If null, use system date. In either case, convert from date format to yyyy-mm-dd hh:mm	
AIRCRAFT_CLASS	CODE_TYPE	P			n		
AIRCRAFT_CLASS	CODE_ENGINE_NO	P			n		
AIRCRAFT_CLASS	CODE_CAPABILITY	P			n		

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
AIRCRAFT_CLASS	CODE_TYPE_ENGINE	P			n		
AIRSPACE	CODE_DIST_VER_LOWER	O			n		
AIRSPACE	TXT_RMK_WORK_HR	O			n		
AIRSPACE							
AIRSPACE	VAL_LOWER_LIMIT	O			n		
AIRSPACE	VAL_DIST_VER_UPPER	O			n		
AIRSPACE	VAL_DIST_VER_MNM	O			n		
AIRSPACE	VAL_DIST_VER_LOWER	O			n		
AIRSPACE	UOM_DIST_VER_UPPER	O			n		
AIRSPACE	UOM_DIST_VER_MNM	O			n		
AIRSPACE	UOM_DIST_VER_LOWER	O			n		
AIRSPACE	DT_WEF	P			n		
AIRSPACE	TXT_RMK	O			n		
AIRSPACE	DT_TIL	M			n		
AIRSPACE	CODE_CLASS	O			n		



AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
AIRSPACE	CODE_DIST_VER_UPPER	O			n		
AIRSPACE	CODE_DIST_VER_MNM	O			n		
AIRSPACE	CODE_WORK_HR	M			n		
AIRSPACE	CODE_LOC_IND	O			n		
AIRSPACE	TXT_NAME	O			n		
AIRSPACE_ASSOC							
AIRSPACE_ASSOC	DT_TIL	M			n		
AIRSPACE_ASSOC	CODE_OPR	O			n		
AIRSPACE_ASSOC	NO_SEQ_OPR	O			n		
AIRSPACE_ASSOC	TXT_RMK	O			n		
AIRSPACE_ASSOC	DT_WEF	P			n		
AIRSPACE_ASSOC	CODE_TYPE	M			n		
AIRSPACE_ASSOC_M							
AIRSPACE_BORDER	DT_TIL	M			n		
AIRSPACE_BORDER	TXT_RMK	O			n		
AIRSPACE_BORDER	DT_WEF	P			n		
AIRSPACE_BORDER_CROSSING							

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
AIRSPACE_BORDER_M							
AIRSPACE_M	CODE_TYPE	P			n		NASR does not conveniently store various airspace types in one place; they are dispersed; e.g., maybe can use an SUA code if a restricted area
AIRSPACE_M							AIXM covers many more airspace types than does NASR
AIRSPACE_M	CODE_ID	P			n		
AIRSPACE_TIMESHEET	DATE_VALID_TIL	M			n	If null, use system date. In either case, convert from date format to yyyy-mm-dd hh:mm	
AIRSPACE_TIMESHEET	TIME_REL_EVENT_WEF	O			n		Assuming NASR does not use event (sunrise, sunset).
AIRSPACE_TIMESHEET	CODE_EVENT_WEF	P			n		Assuming NASR does not use event (sunrise, sunset).
AIRSPACE_TIMESHEET	TIME_WEF	P			n		

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
AIRSPACE_TIMESHEET	CODE_DAY	P			n	Default CODE_DAY = "MON" for continuous ops.	
AIRSPACE_TIMESHEET	TIME_TIL	O			n		
AIRSPACE_TIMESHEET	DATE_VALID_WEF	P			n	Map system date (yyyy-mm-dd hh:mm format)	
AIRSPACE_TIMESHEET	CODE_EVENT_TIL	O			n		Assuming NASR does not use event (sunrise, sunset).
AIRSPACE_TIMESHEET	CODE_DAY_TIL	O			n	Default CODE_DAY_TIL = "SUN" for continuous ops.	
AIRSPACE_TIMESHEET	CODE_COMB_TIL	O			n		Assuming NASR does not use event (sunrise, sunset).
AIRSPACE_TIMESHEET	CODE_TIME_REF	M			n	Assume all times are converted to UTC and CODE_TIME_REF = "UTC".	
AIRSPACE_TIMESHEET	CODE_COMB_WEF	O			n		Assuming NASR does not use event (sunrise, sunset).
AIRSPACE_TIMESHEET	TIME_REL_EVENT_TIL	O			n		Assuming NASR does not use event (sunrise, sunset).

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
AIRSPACE_VERTEX	NO_SEQ	P	BNDRY_PT	BNDRY_PT_ID	y		applicable to selected NASR constructs only, especially ARTCC boundary
AIRSPACE_VERTEX	GEO_LONG_ARC	O			n		
AIRSPACE_VERTEX	UOM_GEO_ACCURACY	O			n		
AIRSPACE_VERTEX	UOM_RADIUS_ARC	O			n		
AIRSPACE_VERTEX	VAL_CRC	O			n		
AIRSPACE_VERTEX	VAL_GEO_ACCURACY	O			n		
AIRSPACE_VERTEX	TXT_RMK	O	BNDRY_PT_REMARK	REMARK	y		
AIRSPACE_VERTEX	GEO_LONG	M	BNDRY_PT	LONG_MIN	y		for ARTCC boundary only
AIRSPACE_VERTEX							AIXM covers many more airspace types than does NASR
AIRSPACE_VERTEX	VAL_RADIUS_ARC	O			n		
AIRSPACE_VERTEX	GEO_LONG	M	BNDRY_PT	LONG_SEC	y		for ARTCC boundary only
AIRSPACE_VERTEX	GEO_LONG	M	BNDRY_PT	LONG_HEMIS	y		for ARTCC boundary only
AIRSPACE_VERTEX	GEO_LONG	M	BNDRY_PT	LONG_DEG	y		for ARTCC boundary only
AIRSPACE_VERTEX	GEO_LAT	M	BNDRY_PT	LAT_SEC	y		for ARTCC boundary only
AIRSPACE_VERTEX	GEO_LAT	M	BNDRY_PT	LAT_MIN	y		for ARTCC boundary only

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
AIRSPACE_VERTEX	GEO_LAT	M	BNDRY_PT	LAT_HEMIS	y		for ARTCC boundary only
AIRSPACE_VERTEX	GEO_LAT	M	BNDRY_PT	LAT_DEG	y		for ARTCC boundary only
AIRSPACE_VERTEX	CODE_TYPE	M			y	Can default to geoidal line or Rhumbline RHL	
AIRSPACE_VERTEX	CODE_DATUM	M			y	Map 'WGS84'	
AIRSPACE_VERTEX	GEO_LAT_ARC	O			n		
APRON	TXT_DESCR_STRENGTH	O			n		E.g., 80/R/B/W/T for a PCN type value
APRON	TXT_RMK	O			n		Description of marking
APRON	DT_WEF	P			n		
APRON	TXT_LGT	O			n		Description of lighting system
APRON	CODE_STRENGTH	O			n		SIWL (single isolated wheel load); PCN (pavement classification number)
APRON	CODE_COND_SFC	O			n		'GOOD', 'FAIR', 'POOR'
APRON	CODE_COMPOSITION	O			n		AIXM: "concrete", "asphalt", "asp+gra", "conc+asp", "grass", "water", "conc+gra", "sand"

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
APRON	DT_TIL	M			n		
APRON	TXT_MARKING	O			n		Description of marking
APRON	CODE_STS	O			n		Status: PARKED (parked aircraft), CLSD, FAILAID (failure/irr op of visual aid), WIP, BKN (broken pavement), SPOWER (secondary power)
APRON_GEOMETRY	DT_TIL	M			n		
APRON_GEOMETRY							
APRON_GEOMETRY	DT_WEF	P			n		Part of key
APRON_GEOMETRY	VAL_GEOID_UNDULATION	O			n		000-99999
APRON_GEOMETRY	VAL_GEO_ACCURACY	O			n		Horizontal DIST
APRON_GEOMETRY	VAL_ELEV_ACCURACY	O			n		000-99999
APRON_GEOMETRY	UOM_GEO_ACCURACY	O			n		
APRON_GEOMETRY	TXT_RMK	O			n		
APRON_GEOMETRY	CODE_DATUM	M			n		WGS 84; ED 50, KRASOVSKY
APRON_GEOMETRY	UOM_DIST_VER	O			n		
APRON_GEOMETRY_M							

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
APRON_M							
APRON_M	TXT_NAME	P			n		Text name to identify apron at AD_HP, which typically has more than one
APRON_SHAPE_POINT	NO_SEQ	P			n		Order of point in sequence. Part of key.
APRON_SHAPE_POINT							NASR does not include. Map to APRON_SP_RMK, APRON_SP_RMK ASSO C
APRON_SHAPE_POINT	VAL_ELEV	O			n		000-99999
APRON_SHAPE_POINT	GEO_LONG_ARC	O			n		
APRON_SHAPE_POINT	GEO_LAT_ARC	O			n		
APRON_SHAPE_POINT	GEO_LONG	M			n		
APRON_SHAPE_POINT	GEO_LAT	M			n		
APRON_SHAPE_POINT	CODE_TYPE	M			n		ABE (arc by edge); GRC (great circle); RHL (rhumb Line), CCA (counterclockwise arc); CWA (clockwise arc); END (last point); CIR (circle)

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
AUTH_FOR_AIRSPACE	CODE_TYPE	O			y	Map 'OWN'	Default value is 'OWN', representing the FAA
AUTH_FOR_AIRSPACE	TXT_RMK	O			y	Text remarks as needed	
AUTH_FOR_AIRSPACE	DT_WEF	P			y	Use system date. Convert from date format to yyyy-mm-dd hh:mm	
AUTH_FOR_AIRSPACE							
AUTH_FOR_AIRSPACE	DT_TIL	M		DELETE_DATE	y	If null use system date + 120. In either case, convert from date format to yyyy-mm-dd hh:mm	
AUTH_FOR_AIRSPACE_M							Since the FAA is the only authority for the NAS, it is the de facto authority.
CALLSIGN_DETAIL	TXT_CALL_SIGN	P			n		NASR does not directly identify the provider. Rather, NASR provides a dummy ID for an airport or ARTCC that supplies a frequency. This is not sufficient to make a mapping.
CALLSIGN_DETAIL	CODE_LANG	P			y	Map 'EN' in all cases (English)	



AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
CALLSIGN_DETAIL	TXT_RMK	O			n		
DIRECT_FLIGHT	VAL_EXCEED_LEN	P			n		To model Traffic Flow Restrictions in Europe
EN_ROUTE_RTE	DT_TIL	M	AIRWAY	DELETE_DATE	y	If null use system date + 120. In either case, convert from date format to yyyy-mm-dd hh:mm	
EN_ROUTE_RTE	TXT_RMK	O			n		
EN_ROUTE_RTE	DT_WEF	P			y	Use system date. Convert from date format to yyyy-mm-dd hh:mm	
EN_ROUTE_RTE_M	TXT_DESIG	P	AIRWAY	AWY_ID	y		A route specified to manage the flow of traffic and conforming to ICAO Annex 11, Appx 1, Section 2 for naming.
EN_ROUTE_RTE_M	TXT_LOC_DESIG	P	AIRWAY	AWY_SEQ_NO	y		
FATO	UOM_DIM	O			n		
FATO							Map to/from this entity only if NASR AIRPORT.SITE_TYPE_CODE = 'H' (heliport)
FATO	DT_WEF	P			n		

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
FATO	VAL_LEN	O			n		
FATO	TXT_RMK	O			n		
FATO	TXT_PROFILE	O			n		
FATO	TXT_NAME	O			n		
FATO	TXT_DESCR_STRENGTH	O			n		
FATO	CODE_STS	O			n		
FATO	DT_TIL	M			n		
FATO	CODE_STRENGTH	O			n		
FATO	CODE_COND_SFC	O			n		
FATO	CODE_COMPOSITION	O			n		
FATO	TXT_MARKING	O			n		
FATO	VAL_WID	O			n		
FATO_CLINE_POINT	TXT_RMK	O			n		
FATO_CLINE_POINT							
FATO_CLINE_POINT	DT_WEF	P			n		
FATO_CLINE_POINT	VAL_GEOID_UNDULATION	O			n		
FATO_CLINE_POINT	VAL_GEO_ACCURACY	O			n		

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
FATO_CLINE_POINT	VAL_ELEV_ACCURACY	O			n		
FATO_CLINE_POINT	VAL_ELEV	O			n		
FATO_CLINE_POINT	VAL_CRC	O			n		
FATO_CLINE_POINT	UOM_GEO_ACCURACY	O			n		
FATO_CLINE_POINT	TXT_VER_DATUM	O			n		
FATO_CLINE_POINT	DT_TIL	M			n		
FATO_CLINE_POINT	CODE_DATUM	M			n		
FATO_CLINE_POINT	UOM_DIST_VER	O			n		
FATO_CLINE_POINT_M							
FATO_CLINE_POINT_M	GEO_LONG	P			n		
FATO_CLINE_POINT_M	GEO_LAT	P			n		
FATO_DIRECTION	VAL_MAG_BRG	O			n		
FATO_DIRECTION	DT_TIL	M			n		
FATO_DIRECTION							
FATO_DIRECTION	DT_WEF	P			n		
FATO_DIRECTION	VAL_TRUE_BRG	O			n		
FATO_DIRECTION	VAL_MEHT	O			n		
FATO_DIRECTION	UOM_MEHT	O			n		

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
FATO_DIRECTION	TXT_RMK	O			n		
FATO_DIRECTION	TXT_DESCR_PSN_VASIS	O			n		
FATO_DIRECTION	CODE_TYPE_VASIS	O			n		
FATO_DIRECTION	CODE_TYPE_VASIS	O			n		
FATO_DIRECTION	VAL_SLOPE_ANGLE_G P_VASIS	O			n		
FATO_DIRECTION_ALS	UOM_LEN	O			n		
FATO_DIRECTION_ALS	VAL_LEN	O			n		
FATO_DIRECTION_ALS							
FATO_DIRECTION_ALS	TXT_DESCR_FLASH	O			n		
FATO_DIRECTION_ALS	CODE_INTST	O			n		
FATO_DIRECTION_ALS	DT_TIL	M			n		
FATO_DIRECTION_ALS	TXT_RMK	O			n		
FATO_DIRECTION_ALS	DT_WEF	P			n		
FATO_DIRECTION_ALS_M	CODE_TYPE	P			n		
FATO_DIRECTION_ALS_M							

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
FATO_DIRECTION_DECL_DIST	VAL_DIST	M			n		
FATO_DIRECTION_DECL_DIST							
FATO_DIRECTION_DECL_DIST	DT_WEF	P			n		
FATO_DIRECTION_DECL_DIST	TXT_RMK	O			n		
FATO_DIRECTION_DECL_DIST	VAL_DIST	M			n		
FATO_DIRECTION_DECL_DIST	UOM_DIST	M			n		
FATO_DIRECTION_DECL_DIST	DT_TIL	M			n		
FATO_DIRECTION_DECL_DIST	VAL_DIST	M			n		
FATO_DIRECTION_DECL_DIST_M	CODE_DAY_PERIOD	P			n		
FATO_DIRECTION_DECL_DIST_M	CODE_TYPE	P			n		
FATO_DIRECTION_DECL_DIST_M							

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
FATO_DIRECTION_LGT_SYS	TXT_DESCR	O			n		
FATO_DIRECTION_LGT_SYS							
FATO_DIRECTION_LGT_SYS	DT_WEF	P			n		
FATO_DIRECTION_LGT_SYS	TXT_RMK	O			n		
FATO_DIRECTION_LGT_SYS	DT_TIL	M			n		
FATO_DIRECTION_LGT_SYS	TXT_DESCR_EMERG	O			n		
FATO_DIRECTION_LGT_SYS_M	CODE_PSN	P			n		
FATO_DIRECTION_LGT_SYS_M							
FATO_DIRECTION_M	TXT_DESIG	P			n		
FATO_DIRECTION_M							
FATO_DIRECTION_OBSTACLE	DT_TIL	M			n		
FATO_DIRECTION_OBSTACLE	DT_WEF	P			n		

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
FATO_DIRECTION_OBSTACLE	VAL_DIST_TO_CLINE	O			n		
FATO_DIRECTION_OBSTACLE	VAL_DIST_THR	O			n		
FATO_DIRECTION_OBSTACLE	VAL_DIST_ALONG_CLINE	O			n		
FATO_DIRECTION_OBSTACLE	VAL_BRG_THR	O			n		
FATO_DIRECTION_OBSTACLE	UOM_DIST_HORZ	O			n		
FATO_DIRECTION_OBSTACLE	CODE_TYPE_OPS	O			n		
FATO_DIRECTION_OBSTACLE							
FATO_DIRECTION_OBSTACLE	TXT_RMK	O			n		
FATO_DIRECTION_OBSTACLE_M							
FATO_LIGHT_GROUP	UOM_DIST_HORZ	O			n		
FATO_LIGHT_GROUP							
FATO_LIGHT_GROUP	GEO_LONG	P			n		
FATO_LIGHT_GROUP	GEO_LAT	P			n		

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
FATO_LIGHT_GROUP	CODE_COLOUR	M			n		
FATO_LIGHT_GROUP	VAL_LEN_SPACING	O			n		
FATO_LIGHT_GROUP	TXT_RMK	O			n		
FATO_LIGHT_GROUP	CODE_INTST	O			n		
FATO_LIGHT_GROUP	NO_WID	M			n		
FATO_LIGHT_GROUP	NO_LEN	M			n		
FATO_LIGHT_GROUP	CODE_SYMMETRY	M			n		
FATO_LIGHT_GROUP	CODE_DATUM	M			n		
FATO_LIGHT_GROUP	VAL_WID_SPACING	O			n		
FATO_M							
FATO_PROTECT_AREA	UOM_DIM	O			n		
FATO_PROTECT_AREA							
FATO_PROTECT_AREA	DT_WEF	P			n		
FATO_PROTECT_AREA	VAL_LEN	O			n		
FATO_PROTECT_AREA	TXT_RMK	O			n		
FATO_PROTECT_AREA	TXT_LGT	O			n		
FATO_PROTECT_AREA	CODE_STS	O			n		
FATO_PROTECT_AREA	CODE_COMPOSITION	O			n		



AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
FATO_PROTECT_AREA	CODE_COMPOSITION	O			n		
FATO_PROTECT_AREA	DT_TIL	M			n		
FATO_PROTECT_AREA	VAL_WID	O			n		
FATO_PROTECT_AREA_M	CODE_TYPE	P			n		
FATO_PROTECT_AREA_M							
FATO_PROTECT_GEOMETRY	DT_TIL	M			n		
FATO_PROTECT_GEOMETRY	VAL_GEO_ACCURACY	O			n		
FATO_PROTECT_GEOMETRY	DT_WEF	P			n		
FATO_PROTECT_GEOMETRY	VAL_GEOID_UNDULATION	O			n		
FATO_PROTECT_GEOMETRY							
FATO_PROTECT_GEOMETRY	UOM_GEO_ACCURACY	O			n		
FATO_PROTECT_GEOMETRY	TXT_RMK	O			n		

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
FATO_PROTECT_GEO ENTRY	CODE_DATUM	M			n		
FATO_PROTECT_GEO ENTRY	VAL_ELEV_ACCURACY	O			n		
FATO_PROTECT_GEO ENTRY	UOM_DIST_VER	O			n		
FATO_PROTECT_GEO ENTRY_M							
FATO_PROTECT_SHAPE _POINT	GEO_LAT	M			n		
FATO_PROTECT_SHAPE _POINT	NO_SEQ	P			n		
FATO_PROTECT_SHAPE _POINT	VAL_ELEV	O			n		
FATO_PROTECT_SHAPE _POINT	GEO_LONG_ARC	O			n		
FATO_PROTECT_SHAPE _POINT	GEO_LONG	M			n		
FATO_PROTECT_SHAPE _POINT	CODE_TYPE	M			n		
FATO_PROTECT_SHAPE _POINT							

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
FATO_PROTECT_SHAPE_POINT	GEO_LAT_ARC	O			n		
FLIGHT_CLASS							NASR does not contain flight class information
FLIGHT_CLASS	CODE_TYPE	P			n		
FLIGHT_CLASS	CODE_STATUS	P			n		
FLIGHT_CLASS	CODE_RULE	P			n		To model Traffic Flow Restrictions in Europe
FLOW_COND_COMBINATION	CODE_OPR	M			n		To model Traffic Flow Restrictions in Europe
FLOW_COND_COMBINATION	NO_SEQ	P			n		
FLOW_COND_COMBINATION							NASR does not model flow restrictions
FLOW_COND_ELEMENT	CODE_REF_LOC	M			n		To model Traffic Flow Restrictions in Europe
FLOW_COND_ELEMENT	CODE_REL_WITH_LOC	O			n		
FLOW_COND_ELEMENT							
FLOW_COND_ELEMENT_LVL	UOM_DIST_VER_UPPER	O			n		
FLOW_COND_ELEMENT_LVL							

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
FLOW_COND_ELEMENT_LVL	VAL_DIST_VER_LOWER	P			n		
FLOW_COND_ELEMENT_LVL	UOM_DIST_VER_LOWER	P			n		
FLOW_COND_ELEMENT_LVL	VAL_DIST_VER_UPPER	O			n		
FLOW_COND_ELEMENT_LVL	CODE_DIST_VER_UPPER	O			n		
FLOW_COND_ELEMENT_LVL	CODE_DIST_VER_LOWER	P			n		To model Traffic Flow Restrictions in Europe
FREQUENCY	UOM_FREQ	O			n		
FREQUENCY	CODE_WORK_HR	M		FREQ_USE, USE_CODE	y		
FREQUENCY							
FREQUENCY	DT_WEF	P			y	Use system date. Convert from date format to yyyy-mm-dd hh:mm	
FREQUENCY	CODE_TYPE	O	ARPT_FREQ_ARPT_USE	FREQ_USE	y		
FREQUENCY	VAL_FREQ_REC	O			n		
FREQUENCY	TXT_RMK_WORK_HR	O			n		
FREQUENCY	TXT_RMK	O			n		

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
FREQUENCY	CODE_SELCAL	O			n		
FREQUENCY	DT_TIL	M	AIRPORT	DELETE_DATE	y	If null use system date + 120. In either case, convert from date format to yyyy-mm-dd hh:mm	
FREQUENCY	CODE_EM	O			n		
FREQUENCY_M	VAL_FREQ_TRANS	P	MLS	FREQ	y		
FREQUENCY_M	VAL_FREQ_TRANS	P	FSS_FREQUENCY	FREQ	y		
FREQUENCY_M							NASR does not generally include detailed schedule information.
FREQUENCY_M	VAL_FREQ_TRANS	P	VOLMET_OPERATION	FREQ	y		
FREQUENCY_M	VAL_FREQ_TRANS	P	TRACON_FREQ	FREQ	y		
FREQUENCY_M	VAL_FREQ_TRANS	P	TACAN_DME_TYPE	FREQ	y		
FREQUENCY_M	VAL_FREQ_TRANS	P	ARPT_FREQ	FREQ	y		
FREQUENCY_M	VAL_FREQ_TRANS	P	FSS_COMM_OUTLET_FREQ	FREQ	y		
FREQUENCY_M	VAL_FREQ_TRANS	P	ASOS_AWOS	FREQ	y		
FREQUENCY_M	VAL_FREQ_TRANS	P	ARTCC_RCAG_FREQ	FREQ	y		
FREQUENCY_M	VAL_FREQ_TRANS	P	ARTCC_FREQ	FREQ	y		
FREQUENCY_M	VAL_FREQ_TRANS	P	NAVIGATION_AID	FREQ	y		

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
FREQUENCY_TIMESHEET	TIME_TIL	O			y		If continuous operation, can assume 6 AM end of the day.
FREQUENCY_TIMESHEET							
FREQUENCY_TIMESHEET	DATE_VALID_WEF	P			y	Map system date (yyyy-mm-dd hh:mm format)	
FREQUENCY_TIMESHEET	CODE_EVENT_WEF	P			n		Assuming NASR does not use event (sunrise, sunset).
FREQUENCY_TIMESHEET	CODE_DAY_TIL	O			y	Default CODE_DAY_TIL = "SUN" for continuous ops.	
FREQUENCY_TIMESHEET	TIME_REL_EVENT_WEF	O			n		Assuming NASR does not use event (sunrise, sunset).
FREQUENCY_TIMESHEET	CODE_EVENT_TIL	O			n		Assuming NASR does not use event (sunrise, sunset).
FREQUENCY_TIMESHEET	CODE_COMB_WEF	O			n		Assuming NASR does not use event (sunrise, sunset).
FREQUENCY_TIMESHEET	CODE_DAY	P			y	Default CODE_DAY_TIL = "MON" for continuous ops.	

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
FREQUENCY_TIMESHEET	CODE_COMB_TIL	O			n		Assuming NASR does not use event (sunrise, sunset).
FREQUENCY_TIMESHEET	TIME_WEF	P			y		If continuous operation, can assume 6 AM start to the day.
FREQUENCY_TIMESHEET	DATE_VALID_TIL	M		DELETE_DATE	y	If null, use system date. In either case, convert from date format to yyyy-mm-dd hh:mm	
FREQUENCY_TIMESHEET	CODE_TIME_REF	M			y	Assume all times are converted to UTC and CODE_TIME_REF = "UTC".	
FREQUENCY_TIMESHEET	TIME_REL_EVENT_TIL	O			n		Assuming NASR does not use event (sunrise, sunset).
FUEL	TXT_DESCR	O	FUEL_TYPE	FUEL_TYPE	y	Direct map	
FUEL	TXT_RMK	O	AIRPORT_REMARK	REMARK	y		
FUEL	DT_TIL	M	FUEL_TYPE	DELETE_DATE	y	If null use system date + 120. In either case, convert from date format to yyyy-mm-dd hh:mm	

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
FUEL	DT_WEF	P			y	Use system date. Convert from date format to yyyy-mm-dd hh:mm	
FUEL_M	CODE_CAT	P	FUEL_TYPE	FUEL_TYPE	y	Map through FUEL_MAP table.	AIXM: A1, AVGAS, JP4, JP5, JET, A1p, B, OCT73, OCT80_87, OCT115_145, MOGAS. NASR: 80, 100, 100LL, 115, A, A1, A1+, B, B+, MOGAS. NOTE: AVGAS = 100LL
GATE_STAND	VAL_GEOID_UNDULATION	O			n		
GATE_STAND	DT_WEF	P			n		
GATE_STAND	UOM_DIST_VER	O			n		
GATE_STAND	VAL_GEO_ACCURACY	O			n		
GATE_STAND	VAL_ELEV_ACCURACY	O			n		
GATE_STAND	VAL_ELEV	O			n		
GATE_STAND	VAL_CRC	O			n		
GATE_STAND	UOM_GEO_ACCURACY	O			n		
GATE_STAND	TXT_RMK	O			n		
GATE_STAND	TXT_DESCR_RESTRICTION	O			n		



AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
GATE_STAND	GEO_LONG	M			n		
GATE_STAND	GEO_LAT	M			n		
GATE_STAND	DT_TIL	M			n		
GATE_STAND	CODE_TYPE	M			n		
GATE_STAND	CODE_DATUM	M			n		
GATE_STAND							NASR does not include. Map to GATE_STAND_RMK, GATE_STAND_RMK_AS SOC
GATE_STAND	TXT_VER_DATUM	O			n		
GATE_STAND_M	TXT_DESIG	P			n		
GATE_STAND_M							
GEO_BORDER	CODE_TYPE	M			n		
GEO_BORDER							
GEO_BORDER	DT_WEF	P			n		
GEO_BORDER	DT_TIL	M			n		
GEO_BORDER	TXT_RMK	O			n		

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
GEO_BORDER_M	TXT_NAME	P			n		Does not apply since NASR does not store the border points with Canada or Mexico explicitly, only as they may be obtained from selected ARTCC border points coincident with those two borders.
GEO_BORDER_VERTEX	UOM_GEO_ACCURACY	O			n		
GEO_BORDER_VERTEX	TXT_RMK	O			n		
GEO_BORDER_VERTEX							
GEO_BORDER_VERTEX	NO_SEQ	P			n		
GEO_BORDER_VERTEX	UOM_RADIUS_ARC	O			n		
GEO_BORDER_VERTEX	VAL_RADIUS_ARC	O			n		
GEO_BORDER_VERTEX	VAL_GEO_ACCURACY	O			n		
GEO_BORDER_VERTEX	CODE_DATUM	M			n		
GEO_BORDER_VERTEX	GEO_LONG_ARC	O			n		
GEO_BORDER_VERTEX	GEO_LAT_ARC	O			n		
GEO_BORDER_VERTEX	GEO_LONG	M			n		
GEO_BORDER_VERTEX	GEO_LAT	M			n		
GEO_BORDER_VERTEX	CODE_TYPE	M			n		

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
GEO_BORDER_VERTEX	VAL_CRC	O			n		
HOLDING_PROCEDURE							
HOLDING_PROCEDURE	DT_WEF	P			n		
HOLDING_PROCEDURE	DT_TIL	O			n		
HOLDING_PROCEDURE	TXT_DESCR	O			n		
HOLDING_PROCEDURE	TXT_RMK	O	HP_REMARK	REMARK	y		
HOLDING_PROCEDURE_M	CODE_TYPE	P			n		There doesn't appear a way to uniquely identify a specific holding procedure in AIXM.
HOLDING_PROCEDURE_M							In this case, NASR contains a much greater level of detail than does AIXM
OBSTACLE	CODE_DATUM	M			n		
OBSTACLE	TXT_NAME	O			n		
OBSTACLE	DT_WEF	P			n		
OBSTACLE							
OBSTACLE	VAL_HGT	O			n		
OBSTACLE	VAL_GEOID_UNDULATION	O			n		

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
OBSTACLE	VAL_GEO_ACCURACY	O			n		
OBSTACLE	VAL_ELEV_ACCURACY	O			n		
OBSTACLE	VAL_CRC	O			n		
OBSTACLE	UOM_GEO_ACCURACY	O			n		
OBSTACLE	TXT_RMK	O			n		
OBSTACLE	DT_TIL	M			n		
OBSTACLE	TXT_DESCR_MARKING	O			n		
OBSTACLE	CODE_LGT	M			n		
OBSTACLE	CODE_GROUP	M			n		
OBSTACLE	TXT_DESCR_TYPE	M			n		
OBSTACLE	UOM_DIST_VER	M			n		
OBSTACLE	VAL_ELEV	M			n		
OBSTACLE	TXT_DESCR_LGT	O			n		
OBSTACLE_IN_AIRSPACE	DT_TIL	M			n		
OBSTACLE_IN_AIRSPACE	TXT_RMK	O			n		
OBSTACLE_IN_AIRSPACE	DT_WEF	P			n		

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
OBSTACLE_IN_AIRSPACE							
OBSTACLE_IN_AIRSPACE_M							NASR has a shell structure for obstacle data but no data.
OBSTACLE_M							NASR has only RWY END OBSTACLE. Map to NASR only if obstacle has an entry in RWY_DIRECTION_OBSTACLE (AIRPORT.SITE_TYPE_CODE != 'H' or FATO_DIRECTION_OBSTACLE (AIRPORT.SITE_TYPE_CODE = 'H'))
OBSTACLE_M	GEO_LAT	P			n		
OBSTACLE_M	GEO_LONG	P			n		
OIL	DT_TIL	M	FUEL_TYPE	DELETE_DATE	y	If null use system date + 120 days. In either case, convert from date format to yyyy-mm-dd hh:mm	
OIL	TXT_DESCR	O			n		
OIL	TXT_RMK	O	AIRPORT_REMARK	REMARK	y		

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
OIL	DT_WEF	P			y	Use system date. Convert from date format to yyyy-mm-dd hh:mm	
OIL							NASR does not include
OIL_M	CODE_CAT	P	FUEL_TYPE	FUEL_TYPE	y		May have to supplement AIXM 's CODE_CAT_OIL with additional types from NASR
ORG_AUTH	DT_WEF	P			y	Use system date. Convert from date format to yyyy-mm-dd hh:mm	
ORG_AUTH	CODE_TYPE	M			y	default='FAA' or 'DOD' maps to 'A'; 'USA' maps to 'S'	A (national authority); AOA (aircraft operating agency); GS (group of states); HA (handling agency); IO (int'l organization); O (organization within state); S (state)
ORG_AUTH	DT_TIL	M	[VARIOUS NASR ENTITIES, AS APPROPRIATE, E.G., AIRPORT, ARTCC, FSS, TRACON]]	DELETE_DATE	y	If null use system date + 120 days. In either case, convert from date format to yyyy-mm-dd hh:mm	
ORG_AUTH	TXT_RMK	O			n		

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
ORG_AUTH	CODE_ID	O	[MULTIPLE: AIRPORT, ARTCC, TRACON,...]	[MULTIPLE: ARPT_SEQ_NO, ARTCC_ID, TRACON_ID,...]	y		Code associated with the state/organization of states: BR, UK, ICAO, etc.. NASR has internal ORG/agencies responsible for SUA, MTR, approach and departure operator codes, towers, ...
ORG_AUTH_ADDRESS	TXT_ADDRESS	M	AIRPORT_CONTACT	ADDRESS1, ADDRESS2	y		
ORG_AUTH_ADDRESS	TXT_RMK	O	AIRPORT_REMARK	REMARK	y		
ORG_AUTH_ADDRESS	DT_WEF	P			y	Use system date. Convert from date format to yyyy-mm-dd hh:mm	
ORG_AUTH_ADDRESS							
ORG_AUTH_ADDRESS	DT_TIL	M	[VARIOUS NASR ENTITIES, AS APPROPRIATE, E.G., AIRPORT, ARTCC, FSS, TRACON]]	DELETE_DATE	y	If null use system date + 120 days. In either case, convert from date format to yyyy-mm-dd hh:mm	
ORG_AUTH_ADDRESS_M	CODE_TYPE	P	AIRPORT_CONTACT		y	If not NULL or not blank, map 'POST'	POST (postal address), PHONE, FAX, TLX, AFS (AFTN), SITA, EMAIL, URL

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
ORG_AUTH_ADDRESS_M	NO_SEQ	P			y	AIXM creates a sequential number	
ORG_AUTH_ADDRESS_M							
ORG_AUTH_ASSOC	DT_TIL	M			n		
ORG_AUTH_ASSOC							
ORG_AUTH_ASSOC	TXT_RMK	O			n		
ORG_AUTH_ASSOC	DT_WEF	P			n		
ORG_AUTH_ASSOC_M	CODE_TYPE	P			n	indirect, e.g., an airport 'owns' a tower	Must create explicit or implied relationships among organizations as parent 'OWN' or child 'MBR' (member). Does not exist explicitly in NASR.
ORG_AUTH_ASSOC_M							
ORG_AUTH_M	TXT_NAME	P	[MULTIPLE ENTITY NAMES]	[ARPT_NAME, ARTCC_NAME, (FSS) NAME, TRACON_ID]	y	NASR organizations include AIRPORT, ARTCC, FSS, TRACON	mapping possible by identifying all organizational references in NASR and collecting them into the attributes of ORG_AUTH_M and ORG_AUTH; it is a m:n mapping



AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
PASSENGER_FACILITY	DT_WEF	P			y	Use system date. Convert from date format to yyyy-mm-dd hh:mm	
PASSENGER_FACILITY	DT_TIL	M		DELETE_DATE	y	If null use system date + 120 days. In either case, convert from date format to yyyy-mm-dd hh:mm	
PASSENGER_FACILITY							NASR does not include
PASSENGER_FACILITY	TXT_DESCR	O			n		airport buses every half hour; bank in city, etc.
PASSENGER_FACILITY	TXT_RMK	O			n		
PASSENGER_FACILITY_M	CODE_TYPE	P	AIRPORT_SERVICE [also AIRPORT]	SERVICE_TYPE_CODE [also PAY_PHONE_FLAG]	y		BANK, HOTEL, INFO, MEDIC, POST, RESTAURANT, TRANSPORTATION; may have to supplement NASR codes
PASSENGER_FACILITY_M	NO_SEQ	P	AIRPORT_SERVICE	ARPT_SEQ_NO	y		AIXM may have to create this code
PASSENGER_FACILITY_M							Generally, NASR does not have passenger facility information, except for the existence of a pay phone at an airport.

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
PREDEFINED_LVL	VAL_DIST_VER	P			n		
PREDEFINED_LVL_COLU MN	DT_TIL	M			n		
PREDEFINED_LVL_COLU MN	TXT_RMK	O			n		
PREDEFINED_LVL_COLU MN	DT_WEF	P			n		
PREDEFINED_LVL_COLU MN_M	CODE_ID	P			n		
PREDEFINED_LVL_TABL E	TXT_RMK	O			n		
PREDEFINED_LVL_TABL E	CODE_DIST_VER	M			n		
PREDEFINED_LVL_TABL E	DT_WEF	P			n		
PREDEFINED_LVL_TABL E	UOM_DIST_VER	M			n		
PREDEFINED_LVL_TABL E	DT_TIL	M			n		
PREDEFINED_LVL_TABL E	TXT_DESCR	O			n		

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
PREDEFINED_LVL_TABL E_M	CODE_ID	P			n		Generally, NASR, in describing an airway, does not indicate flight levels associated with it, only a set of fix points.
RTE_PORTION	DT_WEF	P			n		
RTE_PORTION	DT_TIL	M			n		
RTE_PORTION	DT_TIL	M			n		
RTE_PORTION	TXT_RMK	O			n		
RTE_PORTION	DT_WEF	P			n		
RTE_PORTION_M							NASR does not routinely group together several route segments for traffic flow purposes.
RTE_SEG	UOM_DIST_VER_MNM	O	AWY_POINT		y	Map 'FT'	
RTE_SEG	CODE_TYPE_FLT_RUL E	O			y	map 'IFR'	
RTE_SEG	VAL_REVERS_MAG_TR ACK	O	AWY_POINT	TRK_ANGLE_ONBD	y		
RTE_SEG	UOM_DIST	O	AWY_POINT		y	Map 'FT'	KM (kilometres), M (Metres), FT (Feet), NM (Nautical Miles)

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
RTE_SEG	CODE_INTL	O			y	default to 'domestic' for NASR routes	
RTE_SEG	UOM_DIST_VER_LOWER	O	AWY_POINT		y	Map 'FT'	M (meters); FL (flight level -- 100s of feet); SM (standard meters -- 10s of meters); FT (feet)
RTE_SEG	UOM_DIST_VER_LOWER_OVRDE	O	AWY_POINT		y	Map 'FT'	
RTE_SEG	CODE_LVL	O	AIRWAY	AWY_DESIGNATION	y		
RTE_SEG	UOM_DIST_VER_UPPER	O	AWY_POINT		y	Map 'FT'	
RTE_SEG	UOM_WID	O	AWY_POINT		y	Map 'FT'	
RTE_SEG	VAL_COP_DIST	O	AWY_POINT	CHGOVR_PT_DIST	y		
RTE_SEG	VAL_DIST_VER_LOWER	O	AWY_POINT	MIN_CROSS_ALT, MIN_CROSS_ALT_OPPPOSITE, MIN_OBSTN_CLNC_ALT	y		
RTE_SEG	VAL_MAG_TRACK	O	AWY_POINT	TRK_ANGLE_INBD	y		
RTE_SEG	DT_WEF	P			y	Use system date. Convert from date format to yyyy-mm-dd hh:mm	

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
RTE_SEG	VAL_DIST_VER_MNM	O	AWY_POINT	MIN_ENROUTE_ALT , MIN_ENROUTE_ALT _OPPOSITE	y		
RTE_SEG	CODE_DIST_VER_UPPER	O			y		
RTE_SEG	VAL_DIST_VER_UPPER	O	AWY_POINT	MAX_AUTH_ALT	y		
RTE_SEG	CODE_REP_ATC_START	O			n		
RTE_SEG	CODE_TYPE_PATH	M			n		
RTE_SEG	CODE_TYPE	M	AIRWAY	RNAV_FLAG	y		NASR does not cover all of the code types at present.
RTE_SEG	DT_TIL	M		DELETE_DATE	y	If null use system date + 120 days. In either case, convert from date format to yyyy-mm-dd hh:mm	
RTE_SEG	VAL_LEN	O	AWY_POINT	TRK_ANGLE_OBNBND_LENGTH	y		
RTE_SEG	CODE_CLASS_ACFT	O			n		NASR could add this information
RTE_SEG	CODE_RNP	M			n		

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
RTE_SEG	CODE_DIST_VER_MNM	O			y		
RTE_SEG	CODE_REP_ATC_END	O			n		
RTE_SEG	CODE_RVSM_END	O			n		
RTE_SEG	CODE_RVSM_START	O			n		
RTE_SEG	TXT_RMK	O			n		
RTE_SEG	VAL_DIST_VER_LOWE R_OVRDE	O			n		
RTE_SEG	VAL_REVERS_TRUE_T RACK	O			n		
RTE_SEG	VAL_TRUE_TRACK	O			n		
RTE_SEG	VAL_WID	O			n		
RTE_SEG	CODE_CIV	O	AIRWAY	AWY_DESIGNATIO N	y		Can translate the designation into a civil or mil status
RTE_SEG	CODE_DIST_VER_LOW ER	O			y	Map NASR default, e.g., 'ALT' or WGS84'	NASR doesn't specify in as much detail but has a default available.
RTE_SEG	CODE_DIST_VER_LOW ER_OVRDE	O			n		

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
RTE_SEG_M							Additional NASR route data could be mapped from the SUBST_ROUTE_POINT entity.
RTE_SEG_USE	DT_WEF	P			y	Use system date. Convert from date format to yyyy-mm-dd hh:mm	
RTE_SEG_USE	TXT_RMK_WORK_HR	O			n		
RTE_SEG_USE	CODE_WORK_HR	M			y	default map 'H24'	
RTE_SEG_USE	TXT_RMK	O			n		
RTE_SEG_USE	DT_TIL	M		DELETE_DATE	y	If null use system date + 120. In either case, convert from date format to yyyy-mm-dd hh:mm	
RTE_SEG_USE_LVL	VAL_DIST_VER_LOWER	P	PREFERRED_ROUTE	ALT_DESCRIP	y		Mapping applicable only to pref routes
RTE_SEG_USE_LVL	CODE_DIST_VER_UPPER	O			y	Map NASR default, e.g., 'ALT' or WGS84'	NASR doesn't specify in as much detail but has a default available.
RTE_SEG_USE_LVL	UOM_DIST_VER_UPPER	O			y	Map 'FT'	
RTE_SEG_USE_LVL	VAL_DIST_VER_UPPER	O	PREFERRED_ROUTE	ALT_DESCRIP	y		

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
RTE_SEG_USE_LVL	CODE_DIST_VER_LOWER	P			y	Map NASR default, e.g., 'ALT' or WGS84'	NASR doesn't specify in as much detail but has a default available.
RTE_SEG_USE_LVL	UOM_DIST_VER_LOWER	P			y	Map 'FT'	
RTE_SEG_USE_M	NO_SEQ	P	AWY_POINT	START_PT_FLAG	y		
RTE_SEG_USE_M	CODE_RTE_AVBL	P			n		
RTE_SEG_USE_M	CODE_DIR	P			y	Default 'F' (forward)	
RTE_SEG_USE_TIMESH EET	TIME_REL_EVENT_WEEK	O			n		Assuming NASR does not use event (sunrise, sunset).
RTE_SEG_USE_TIMESH EET	DATE_VALID_WEF	P			y	Map system date (yyyy-mm-dd hh:mm format)	
RTE_SEG_USE_TIMESH EET	CODE_DAY	P			y	Default CODE_DAY_TIL = "MON" for continuous ops.	
RTE_SEG_USE_TIMESH EET	CODE_EVENT_WEF	P			n		Assuming NASR does not use event (sunrise, sunset).
RTE_SEG_USE_TIMESH EET							Philosophically, a route in NASR is assumed to be available for use at all times.



AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
RTE_SEG_USE_TIMESHEET	CODE_DAY_TIL	O			y	Default CODE_DAY_TIL = "SUN" for continuous ops.	
RTE_SEG_USE_TIMESHEET	CODE_EVENT_TIL	O			n		Assuming NASR does not use event (sunrise, sunset).
RTE_SEG_USE_TIMESHEET	CODE_COMB_WEF	O			n		Assuming NASR does not use event (sunrise, sunset).
RTE_SEG_USE_TIMESHEET	CODE_COMB_TIL	O			n		Assuming NASR does not use event (sunrise, sunset).
RTE_SEG_USE_TIMESHEET	TIME_WEF	P			y	Default '00:00:00'	
RTE_SEG_USE_TIMESHEET	DATE_VALID_TIL	M		DELETE_DATE	y	If null, use system date. In either case, convert from date format to yyyy-mm-dd hh:mm	
RTE_SEG_USE_TIMESHEET	CODE_TIME_REF	M			y	Assume all times are converted to UTC and CODE_TIME_REF = "UTC".	
RTE_SEG_USE_TIMESHEET	TIME_REL_EVENT_TIL	O			n		Assuming NASR does not use event (sunrise, sunset).

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
RTE_SEG_USE_TIMESHEET	TIME_TIL	O			y	Default '24:00:00'	
RWY	VAL_WID	O	RUNWAY	RWY_WIDTH	y	Direct map; UOM_DIM_RWY = 'FT'	
RWY	TXT_DESCR_STRENGTH	O	RUNWAY	PAVEMENT_TYPE_CODE	y		NASR: F (flexible), R (rigid) ??
RWY	TXT_DESCR_STRENGTH	O	RUNWAY	TIRE_PRES_CODE	y		W (high, no limit), X (medium, to 217 psi), Y (low, to 145psi), Z (very low, to 73 psi) ??
RWY	TXT_DESCR_STRENGTH	O	RUNWAY	GROSS+WT, DDTW, GROW_WT_DTW, GROSS_WT, DW, GROSS_WT, SW	y		??Can these weight bearing (single wheel, double dual wheel, dual wheel) capacities be mapped?
RWY	TXT_RMK	O	RUNWAY	DTRM_METHOD_CODE	y	Direct map	T: (technical) or U (experience using)
RWY	UOM_DIM_RWY	O			y	map 'FT'	

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
RWY	CODE_STS	O	RUNWAY	RWY_STATUS_FLAG	y	if = 'CLOSED' map 'CLSD'	??How to map? AIXM has no 'open' status.AIXM: "PARKED", "CLSD", "FAILAID", "WIP", "BKN", "SPOWER"; NASR: "OPEN", "CLOSED". Relationship to lighting aids??
RWY	VAL_LEN	O	RUNWAY	RWY_LEN	y	Direct map	
RWY	TXT_DESCR_STRENGTH	O	RUNWAY	SUBGRADE_STRENGTH_CODE	y		A (high), B (medium), C (low) d (Ultra-low), E?, F? ??
RWY							Map to/from this entity only if NASR AIRPORT.SITE_TYPE_CODE != 'H' (heliport)
RWY	UOM_DIM_STRIP	O			y	map 'FT'	Does strip correspond to thresholds? It extends beyond RWY boundaries
RWY	VAL_LEN_OFFSET	O			n		Longitudinal offset of strip when not symmetrically extended beyond the RWY ends. NASR has no strip info

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
RWY	TXT_DESCR_STRENGTH	O	RUNWAY	PCN	y	Concatenate PCN/PAVEMENT_TYPE_CODE/SUBGRADE_STRENGTH_CODE/TIRE_PRESENT_CODE ('/' delimited)	AIXM ex: 80/R/B/W/T for PCN value. NASR has 2-digit number. Can we map?
RWY	CODE_STRENGTH	O	RUNWAY	PCN	y	If not blank or not null, map "PCN"	Code indicating how strength measured: PCN, SIWL
RWY	DT_WEF	P	RUNWAY		y	Use system date. Convert from date format to yyyy-mm-dd hh:mm	
RWY	VAL_LEN_STRIP	O			n		NASR has no strip info
RWY	VAL_WID_OFFSET	O			n		Lateral offset of strip when not symmetrical beyond RWY ends. NASR has no strip info
RWY	VAL_WID_STRIP	O			n		NASR has no strip info
RWY	TXT_MARKING	O			n		
RWY	TXT_PROFILE	O			n		

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
RWY	CODE_COMPOSITION	O	RUNWAY_SURFACE_TYPE	SURFACE_TYPE_CODE	y	if = 'CONC' map 'conc'; if = 'ASPH' map 'asphalt'; if = 'ASPH-TURF' map 'asp+gra'; if = ASPH-CONC' map 'conc+asp'; if = 'TURF' map 'grass'; if = 'WATER' map 'water'; if = 'CONC-TURF' map conc+gra; if = 'DIRT' map ??; if = 'ASPH-DIRT' ??; if = 'ASPH-GRVL' ?	NASR: ASPH-CONC, ASPH-DIRT, ASPH-GRVL, ASPG-TRTD, ASPH-TURF, ASPH, BRICK, CLICHÉ, CONC-DIRT, CONC-GRVL, CONC-TRTD, CONC-TURF, CONC, DECK (alum), DIRT, GRVL, MATS, "ROOF-TOP, SNOW, TRTD, TURF-DIRT, TURF-GVL, WOOD, WATER AIXM: "concrete", "asphalt", "asp+
RWY	CODE_COND_SFC	O	RUNWAY_SURFACE_TYPE	COND	y	Direct map	NASR: GOOD, FAIR, POOR
RWY	DT_TIL	M	RUNWAY	DELETE_DATE	y	If null use system date + 120. In either case, convert from date format to yyyy-mm-dd hh:mm	
RWY_CLINE_POINT	VAL_ELEV	O			n		
RWY_CLINE_POINT							Map to/from this entity only if NASR AIRPORT.SITE_TYPE_CODE != 'H' (heliport)

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
RWY_CLINE_POINT	VAL_GEOID_UNDULATION	O			n		
RWY_CLINE_POINT	VAL_GEO_ACCURACY	O			n		
RWY_CLINE_POINT	VAL_ELEV_ACCURACY	O			n		
RWY_CLINE_POINT	UOM_GEO_ACCURACY	O			n		KM (kilometers); M (meters); FT (feet); NM (nautical miles)
RWY_CLINE_POINT	UOM_DIST_VER	O			n		M (meters); FL (flight level -- 100s of feet); SM (standard meters -- 10s of meters); FT (feet)
RWY_CLINE_POINT	TXT_VER_DATUM	O			n		
RWY_CLINE_POINT	TXT_RMK	O			n		
RWY_CLINE_POINT	DT_TIL	M			n		
RWY_CLINE_POINT	DT_WEF	P			n		
RWY_CLINE_POINT_M							NASR does not include. Map to/from this entity only if NASR AIRPORT.SITE_TYPE_CODE != 'H' (heliport)
RWY_CLINE_POINT_M	GEO_LONG	P			n		
RWY_CLINE_POINT_M	GEO_LAT	P			n		

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
RWY_DIRECTION	VAL_ELEV_TDZ	O	RUNWAY_END	TDZ_ELEV	y	Direct map. UOM_ELEV_TDZ = 'FT'	
RWY_DIRECTION							Map to/from this entity only if NASR AIRPORT.SITE_TYPE_CODE != 'H' (heliport)
RWY_DIRECTION	VAL_SLOPE_ANGLE_G P_VASIS	O	RUNWAY_END	VISUAL_GLIDE_PAT H_ANGLE	y	Direct map	NASR values between 3.0 and 4.50 . Are these the same thing?
RWY_DIRECTION	UOM_ELEV_TDZ	O			y	Map 'FT'	
RWY_DIRECTION	TXT_DESCR_RVR	O	RUNWAY_END	RWY_VISUAL_RAN GE_EQUIP_CODE	y	If = 'N','none available' else 'Location is %s'; If = 'T',%s = 'touchdown'; if = 'M',%s = 'midfield'; if = 'R',%s = 'rollout'; if = 'TM' %s = 'touchdown/midfield', if = 'TR' %s = 'touchdown/rollout', if = 'MR' %s = 'midfield/rollout';if='TMR',%s='touc	NASR:M (Midfield), MR (Midfield-rollout), R (rollout), T (touchdown), TM (touchdown-midfield), TMR (Touchdown-rollout), TR (Touchdown-Rollout)
RWY_DIRECTION	TXT_DESCR_PSN_VASIS	O	RUNWAY_END	VGSI_CODE	y	Direct map	

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
RWY_DIRECTION	TXT_DESCR_ARST_DV C	O	ARRESTING_DEVICE	ARREST_DEVICE_C ODE	y	Direct map	NASR codes = BAK11, BAK12, BAK13, BAK14, BAK6, BAK9, E14, E15, E15B, E27, E27B E28, E5, E5-1, Et1, M2, MA1, MA1A, MA1A-M, UNI-DIR
RWY_DIRECTION	CODE_VFR_PATTERN	O	RUNWAY_END	RIGHT_HAND_TRAF FIC_PAT_FLAG	y	if = 'Y' map 'R'; if = 'N' map 'L'	
RWY_DIRECTION	VAL_MAG_BRG	O			n		
RWY_DIRECTION	VAL_ELEV_TDZ_ACCU RACY	O			n		
RWY_DIRECTION	VAL_DUR_TAX	O			n		Estimated taxi time to RWY direction
RWY_DIRECTION	UOM_MEHT	O			n		KM (kilometres), M (metres), FT (feet), NM (nautical miles)



AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
RWY_DIRECTION	CODE_TYPE_VASIS	M	RUNWAY_END	VGSI_CODE	y	Mapping unknown; add to AIXM codes?	Type of visual approach slope indicator. AIXM = 3b-ATVASIS, HAPI, 3b-AVASIS PAPI, APAPI, VASIS, AVASIS, TVASIS, 3-bVASIS, ATVASIS; NASR VGSI type= NONE, NSTD, P2L, P2R, P4L, P4R, PNIL, PNIR, PSIL PSIR, PVT, S2L, S2R, TRIL, TRIR, V12, V16, V2L, V2R, V4L
RWY_DIRECTION	DT_WEF	P	RUNWAY_END		y	Use system date. Convert from date format to yyyy-mm-dd hh:mm	
RWY_DIRECTION	DT_TIL	M	RUNWAY_END	DELETE_DATE	y	If null use system date + 120 days. In either case, convert from date format to yyyy-mm-dd hh:mm	
RWY_DIRECTION	VAL_MEHT	O			n		Minimum Eye Height over Threshold
RWY_DIRECTION	VAL_TRUE_BRG	O	RUNWAY_END	TRUE_ALIGNMENT	y	Direct map	Formats are different. Are these really the same?
RWY_DIRECTION_ALS	DT_WEF	P			y	Use system date. Convert from date format to yyyy-mm-dd hh:mm	

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
RWY_DIRECTION_ALS							Map to/from this entity only if NASR AIRPORT.SITE_TYPE_CODE != 'H' (heliport)
RWY_DIRECTION_ALS	UOM_LEN	O			y	Map 'FT'	KM (Kilometres), M (metres), FT (feet), NM (nautical miles)
RWY_DIRECTION_ALS	TXT_DESCR_FLASH	O	RUNWAY_END	APCH_LGT_SYSTEM_CODE	y	Direct map	Map NASR code -- may indicate flash characteristics
RWY_DIRECTION_ALS	CODE_INTST	O	RUNWAY_END	APCH_LGT_SYSTEM_CODE	y	If = 'ALSAF', 'ALSF1', or 'ASLF2' map "LIH". If = 'MALS', 'MALSF' or 'MALSR' map 'LIM'; else map BLANK	?? Mapping? Code indicating light intensity: LIL (Light intensity low), LIH (light intensity high), LIM (light intensity medium)
RWY_DIRECTION_ALS	TXT_RMK	O			n		
RWY_DIRECTION_ALS	DT_TIL	M	RUNWAY_END	DELETE_DATE	y	If null use system date + 120 days. In either case, convert from date format to yyyy-mm-dd hh:mm	
RWY_DIRECTION_ALS	VAL_LEN	O			n		Overall length of the approach lighting system

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
RWY_DIRECTION_ALS_M	CODE_TYPE	P			y		SALS (short approach lighting sys), SALSF (sequenced flashers), SSALF (simplified with flashers), SSALR (simplified with RAIL), SSALS (Simplified short approach lighting system)
RWY_DIRECTION_ALS_M							
RWY_DIRECTION_DECL_DIST	VAL_DIST	M	RUNWAY_END	ACLT_STOP_DIST_AVBL	y	Direct map	
RWY_DIRECTION_DECL_DIST							Map to/from this entity only if NASR AIRPORT.SITE_TYPE_CODE != 'H' (heliport)
RWY_DIRECTION_DECL_DIST	VAL_DIST	M	RUNWAY_END	DISPLACED_THR_LEN	y	Direct map	
RWY_DIRECTION_DECL_DIST	TXT_RMK	O			n		
RWY_DIRECTION_DECL_DIST	UOM_DIST	O			y	Map 'FT'	KM (kilometres), M (Metres), FT (Feet), NM (Nautical Miles)
RWY_DIRECTION_DECL_DIST	VAL_DIST	M	RUNWAY_END	TKOF_RUN_AVBL	y	Direct map	

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
RWY_DIRECTION_DECL_DIST	DT_WEF	P			y	Use system date. Convert from date format to yyyy-mm-dd hh:mm	
RWY_DIRECTION_DECL_DIST	DT_TIL	M	RUNWAY_END	DELETE_DATE	y	If null use system date + 120 days. In either case, convert from date format to yyyy-mm-dd hh:mm	Map RWY_END.DELETE_DATE from AIXM RWY_DIRECTION
RWY_DIRECTION_DECL_DIST	VAL_DIST	M	RUNWAY_END	LNDG_DIST_AVBL	y	Direct map	
RWY_DIRECTION_DECL_DIST_M	CODE_TYPE	P	RUNWAY_END	LNDG_DIST_AVBL	y	If not null or not blank, map 'LDA'	
RWY_DIRECTION_DECL_DIST_M	CODE_TYPE	P	RUNWAY_END	TKOF_RUN_AVBL	y	If not null or not blank, map 'TORA'	ASDA (Accelerate-Stop DIST Available); TORA (Take-off Run Available); TODA (Take-Off DIST Available); DPLM (Threshold Displacement); LDA (Landing DIST Available). NASR has no TODA but has an overrun length--any relationship??
RWY_DIRECTION_DECL_DIST_M	CODE_TYPE	P	RUNWAY_END	DISPLACED_THR_LEN	y	If not null or not blank, map 'DPLM'	
RWY_DIRECTION_DECL_DIST_M	CODE_TYPE	P	RUNWAY_END	ACLT_STOP_DIST_AVBL	y	If not null or not blank, map 'ASDA'	

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
RWY_DIRECTION_DECL_DIST_M	CODE_DAY_PERIOD	P			y	Map 'A'	D (Day), N (Night), A (Day and Night)
RWY_DIRECTION_DECL_DIST_M							
RWY_DIRECTION_LGT_SYS	DT_TIL	M	RUNWAY	DELETE_DATE	y	If null use system date. In either case, convert from date format to yyyy-mm-dd hh:mm	RWY.DELETE_DATE mapped from RWY
RWY_DIRECTION_LGT_SYS	DT_WEF	P	RUNWAY		y	Use system date. Convert from date format to yyyy-mm-dd hh:mm	
RWY_DIRECTION_LGT_SYS	TXT_DESCR_EMERG	O			n		Description of emergency lighting system availability and characteristics
RWY_DIRECTION_LGT_SYS	TXT_RMK	O			n		Description of emergency lighting system availability and characteristics
RWY_DIRECTION_LGT_SYS	TXT_DESCR	O	RUNWAY	RWY_LGT_CODE	y	Direct map	NASR defines as RWY Edge Intensity Lights. Codes are FLD (flood), HIGH, HIRL (High Intensity RWY Lights), LIRL (Low Intensity rwy lights); Low, MED, NTSD (non-standard), PERI (perimeter), STRB (strobe)

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
RWY_DIRECTION_LGT_S YS_M	CODE_PSN	P	RUNWAY_END	TDZ_LGT_AVBL_FL AG	y	If TDZ_LGT_AVBL_FLAG = 'Y' map 'THR'	
RWY_DIRECTION_LGT_S YS_M							Map to/from this entity only if NASR AIRPORT.SITE_TYPE_C ODE != 'H' (heliport)
RWY_DIRECTION_LGT_S YS_M	CODE_PSN	P	RUNWAY_END	CNTRLN_LGTS_AV BL_FLAG	y	If CNTRLN_LGTS_AVBL_FL AG = 'Y' map "CL"	TWYINT (TWY int.); AFTTHR (after threshold); END (RWY end); HOLD_BAY (TWY hold); RTWYINT (Rapid txy intersect.); EDGE; THR, TDZ, DESIG (RWY designation), AIM (aiming point); DISPTHYR; CL (center line)
RWY_DIRECTION_LGT_S YS_M	CODE_PSN	P	RUNWAY_END	RWY_END_LGTS_F LAG	y	If RWY_END_LGTS_FLAG = 'Y' map 'END'	
RWY_DIRECTION_M	TXT_DESIG	P	RUNWAY_END	RWY_END_ID	y	Direct map	
RWY_DIRECTION_OBST ACLE	VAL_BRG_THR	O	RUNWAY_END_OBSTN	CNTRLN_DIRECTIO N_CODE	y	If = 'L' , map 270. If = 'R', map 90. If = 'B', map 180	Correct mappings??? AIXM: Magnetic bearing from threshold of RWY to obstacle. NASR: L (left), R (right) B (both sides)

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
RWY_DIRECTION_OBSTACLE							Map to/from this entity only if NASR AIRPORT.SITE_TYPE_CODE != 'H' (heliport); else map to/from FATO_DIRECTION_OBSACLE
RWY_DIRECTION_OBSTACLE	VAL_DIST_THR	O	RUNWAY_END_OBSTN	DIST_FROM_THR	y	Direct map	Obstacle DIST to threshold.
RWY_DIRECTION_OBSTACLE	UOM_DIST_HORZ	O			y	Map "FT"	KM = kilometres, M = Metres, FT = Feet, NM = Nautical Miles
RWY_DIRECTION_OBSTACLE	VAL_DIST_ALONG_CENTERLINE	O			n		Obstacle DIST to threshold along the centerline
RWY_DIRECTION_OBSTACLE	TXT_RMK	O			n		
RWY_DIRECTION_OBSTACLE	DT_WEF	P	RUNWAY_END_OBSTN		y	Use system date. Convert from date format to yyyy-mm-dd hh:mm	
RWY_DIRECTION_OBSTACLE	DT_TIL	M	RUNWAY_END_OBSTN	DELETE_DATE	y	If null use system date. In either case, convert from date format to yyyy-mm-dd hh:mm	

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
RWY_DIRECTION_OBSTACLE	CODE_TYPE_OPS	O			y	DEFAULT	APCH (approach) or TKOF (takeoff)
RWY_DIRECTION_OBSTACLE	VAL_DIST_TO_CLINE	O	RUNWAY_END_OBSTN	CNTRLN_OFFSET	y	Direct map	Obstacle DIST to centerline.
RWY_DIRECTION_OBSTACLE_M							
RWY_LGT_GROUP	CODE_SYMMETRY	M			y		
RWY_LGT_GROUP							NASR does not include this type of data. Map to/from this entity only if NASR AIRPORT.SITE_TYPE_CODE != 'H' (heliport)
RWY_LGT_GROUP	GEO_LONG	P			n		
RWY_LGT_GROUP	GEO_LAT	P			n		
RWY_LGT_GROUP	UOM_DIST	O			y	Map 'FT'	KM (kilometers), M (meters), FT (feet), NM (nautical miles)
RWY_LGT_GROUP	CODE_INTST	O			y		Code indicating light intensity: LIL (Light intensity low), LIH (light intensity high), LIM (light intensity medium)



AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
RWY_LGT_GROUP	VAL_WID_SPACING	O			n		DIST between 2 consecutive lights in group (widthwise)
RWY_LGT_GROUP	VAL_LEN_SPACING	O			n		DIST between 2 consecutive lights in group (lengthwise)
RWY_LGT_GROUP	CODE_DATUM	M			y	Map 'WGS 84'= 'WGE'	
RWY_LGT_GROUP	NO_WID	M			n		
RWY_LGT_GROUP	NO_LEN	M			n		
RWY_LGT_GROUP	CODE_COLOUR	M			n		blu, grn, prp, red, whi, yel
RWY_LGT_GROUP	TXT_RMK	O			n		
RWY_M							Map to/from this entity only if NASR AIRPORT.SITE_TYPE_CODE != 'H' (heliport)
RWY_M	TXT_DESIG	P			y		
RWY_PROTECT_AREA	UOM_DIM	O			n		
RWY_PROTECT_AREA							NASR does not include. Map to/from this entity only if NASR AIRPORT.SITE_TYPE_CODE != 'H' (heliport)
RWY_PROTECT_AREA	DT_WEF	P			n		

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
RWY_PROTECT_AREA	VAL_LEN	O			n		
RWY_PROTECT_AREA	TXT_RMK	O			n		
RWY_PROTECT_AREA	TXT_LGT	O			n		Text descrip of lighting
RWY_PROTECT_AREA	CODE_STS	O			n		??How to map? AIXM has no 'open' status.AIXM: "PARKED", "CLSD", "FAILAID", "WIP", "BKN", "SPOWER"; NASR: "OPEN", "CLOSED". Relationship to lighting aids??
RWY_PROTECT_AREA	CODE_COMPOSITION	O			n		?? Assume same as RWY surface??AIXM: "concrete", "asphalt", "asp+gra", "conc+asp", "grass", "water", "conc+gra", "sand"
RWY_PROTECT_AREA	DT_TIL	M			n		
RWY_PROTECT_AREA	VAL_WID	O			n		
RWY_PROTECT_AREA_M	CODE_TYPE	P			n		OFS (obstacle free surface); ILS (ILS PROTECT area); SAFE (RWY end SAFE area); OFZ (obstacle free zone); CWY (clearway)

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
RWY_PROTECT_AREA_M							NASR does not include. Map to/from this entity only if NASR AIRPORT.SITE_TYPE_CODE != 'H' (heliport)
RWY_PROTECT_GEOMETRY	VAL_GEO_ACCURACY	O			n		
RWY_PROTECT_GEOMETRY	DT_WEF	P			n		
RWY_PROTECT_GEOMETRY	TXT_RMK	O			n		
RWY_PROTECT_GEOMETRY	VAL_GEOID_UNDULATION	O			n		
RWY_PROTECT_GEOMETRY							
RWY_PROTECT_GEOMETRY	UOM_DIST_VER	O			n		
RWY_PROTECT_GEOMETRY	DT_TIL	M			n		
RWY_PROTECT_GEOMETRY	UOM_GEO_ACCURACY	O			n		KM (kilometers); M (meters); FT (feet); NM (nautical miles)
RWY_PROTECT_GEOMETRY	VAL_ELEV_ACCURACY	O			n		

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
RWY_PROTECT_GEOMETRY_M							
RWY_PROTECT_SHAPE_POINT	GEO_LAT_ARC	O			n		
RWY_PROTECT_SHAPE_POINT							NASR does not include. Map to/from this entity only if NASR AIRPORT.SITE_TYPE_CODE != 'H' (heliport)
RWY_PROTECT_SHAPE_POINT	NO_SEQ	P			n		sequence number of point in edge description
RWY_PROTECT_SHAPE_POINT	GEO_LONG_ARC	O			n		
RWY_PROTECT_SHAPE_POINT	GEO_LONG	M			n		
RWY_PROTECT_SHAPE_POINT	GEO_LAT	M			n		
RWY_PROTECT_SHAPE_POINT	CODE_TYPE	M			n		ABE (arc by edge); GRC (great circle); RHL (rhumb Line), CCA (counterclockwise arc); CWA (clockwise arc); END (last point); CIR (circle)

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
RWY_PROTECT_SHAPE_POINT	VAL_ELEV	O			n		
SEGMENT	DT_TIL	M		DELETE_DATE	y	If null use system date. In either case, convert from date format to yyyy-mm-dd hh:mm	In NASR, an airway/route is deemed available at all times.
SEGMENT	VAL_REVERS_TRUE_TRACK	O			n		
SEGMENT	UOM_DIST	O			y	Map 'FT'	KM (kilometers), M (meters), FT (feet), NM (nautical miles)
SEGMENT	VAL_LEN	O			n		
SEGMENT	VAL_TRUE_TRACK	O			n		
SEGMENT	DT_WEF	P			y	Use system date. Convert from date format to yyyy-mm-dd hh:mm	
SEGMENT	VAL_REVERS_MAG_TRACK	O			n		
SEGMENT	TXT_RMK	O			n		
SEGMENT	CODE_TYPE	P			n		
SEGMENT	CODE_SOURCE	M			n		
SEGMENT	VAL_MAG_TRACK	O			n		

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
SEGMENT_M							Philosophically, AIXM deals in route segments while NASR focuses on airway points. This leads to some differences in how data about route segments is described. The most comparable data to AIXM is found in the AWY_POINT entity in NASR.
SERVICE	VAL_GEO_ACCURACY	O			n		
SERVICE							NASR does not organize services as AIXM does, so many of these attributes are missing in NASR.
SERVICE	DT_WEF	P			y		
SERVICE	UOM_DIST_VER	O			y	Map 'FT'	M (meters), FL (flight level -- 100s of feet), SM (standard meters -- 10s of meters), FT (feet)
SERVICE	CODE_SOURCE	O			y	Default source is 'FAA'	
SERVICE	VAL_ELEV	O			n		
SERVICE	VAL_GEOID_UNDULATION	O			n		

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
SERVICE	VAL_ELEV_ACCURACY	O			n		
SERVICE	DT_TIL	M			y		
SERVICE	VAL_CRC	O			n		
SERVICE	CODE_WORK_HR	M			n		
SERVICE	GEO_LAT	O			n		
SERVICE	GEO_LONG	O			n		
SERVICE	TXT_RMK	O			n		
SERVICE	TXT_RMK_WORK_HR	O			n		
SERVICE	CODE_DATUM	O			y	default is WGS84, or 'WGE'	
SERVICE	TXT_VER_DATUM	O			n		
SERVICE	UOM_GEO_ACCURACY	O			n		
SERVICE_AT_AD_HP	TXT_RMK	O	AIRPORT_REMARK	REMARK	y		
SERVICE_AT_AD_HP	DT_WEF	P			y		
SERVICE_AT_AD_HP	DT_TIL	M			y		
SERVICE_AT_AD_HP_M							
SERVICE_IN_AIRSPACE	DT_TIL	M			y		
SERVICE_IN_AIRSPACE	TXT_RMK	O			n		
SERVICE_IN_AIRSPACE	DT_WEF	P			y		

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
SERVICE_IN_AIRSPACE_M							
SERVICE_M	CODE_TYPE	P			y		See associated NASR SERVICES matrix for the array of services found across NASR.
SERVICE_M	NO_SEQ	P	AIRPORT_SERVICE	SERVICE_TYPE_CODE	y		A unique NASR record ID
SERVICE_M							There are numerous types of service spread across NASR. They cannot be easily collected in one place, as NASR is now organized. See the associated matrix that collects NASR services across many entities into one table. The mapping, therefore, will not
SERVICE_ON_HOLDING_PROC	DT_TIL	M		DELETE_DATE	y	If null use system date. In either case, convert from date format to yyyy-mm-dd hh:mm	



AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
SERVICE_ON_HOLDING_PROC	TXT_RMK	O			y	From NASR HOLDING_PATTERN: ILS_COMPATIBILITY_TYPE_CODE and MLS_COMPATIBILITY_TYPE_CODE, each with its own domain values	NASR Holding Pattern services may be included here since there isn't a comparable structure between NASR and AIXM
SERVICE_ON_HOLDING_PROC	DT_WEF	P			y	Use system date. Convert from date format to yyyy-mm-dd hh:mm	
SERVICE_ON_HOLDING_PROC_M							
SERVICE_ON_IAP	DT_TIL	M			n		
SERVICE_ON_IAP	TXT_RMK	O			n		
SERVICE_ON_IAP	DT_WEF	P			n		
SERVICE_ON_IAP_M							
SERVICE_ON_RTE_SEG	DT_WEF	P			n		
SERVICE_ON_RTE_SEG	DT_TIL	M			n		
SERVICE_ON_RTE_SEG	TXT_RMK	O			n		

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
SERVICE_ON_RTE_SEG_M							NASR does not typically define services on route segments even as AIXM suggests that it is also an unusual situation in Europe.
SERVICE_ON_SID	DT_TIL	M			n		
SERVICE_ON_SID	TXT_RMK	O			n		
SERVICE_ON_SID	DT_WEF	P			n		
SERVICE_ON_SID_M							
SERVICE_ON_STAR	DT_WEF	P			n		
SERVICE_ON_STAR	TXT_RMK	O			n		
SERVICE_ON_STAR	DT_TIL	M			n		
SERVICE_ON_STAR_M							
SERVICE_TIMESHEET	CODE_EVENT_TIL	O			n		Assuming NASR does not use event (sunrise, sunset).
SERVICE_TIMESHEET	TIME_WEF	P			y	Computed from OPER_HOURS.	
SERVICE_TIMESHEET	DATE_VALID_WEF	P			y	Map system date (yyyy-mm-dd hh:mm format)	

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
SERVICE_TIMESHEET	CODE_DAY	P			y	Default CODE_DAY_TIL = "MON" for continuous ops.	
SERVICE_TIMESHEET	CODE_EVENT_WEF	P			n		Assuming NASR does not use event (sunrise, sunset).
SERVICE_TIMESHEET	TIME_TIL	O			y	Computed from OPER_HOURS.	
SERVICE_TIMESHEET	CODE_DAY_TIL	O			y	Default CODE_DAY_TIL = "SUN" for continuous ops.	
SERVICE_TIMESHEET	TIME_REL_EVENT_TIL	O			n		Assuming NASR does not use event (sunrise, sunset).
SERVICE_TIMESHEET	CODE_COMB_WEF	O			n		Assuming NASR does not use event (sunrise, sunset).
SERVICE_TIMESHEET	CODE_COMB_TIL	O			n		Assuming NASR does not use event (sunrise, sunset).
SERVICE_TIMESHEET	DATE_VALID_TIL	M		DELETE_DATE	y	If null, use system date. In either case, convert from date format to yyyy-mm-dd hh:mm	

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
SERVICE_TIMESHEET	CODE_TIME_REF	M	AIRPORT ?		y	Assume all times are converted to UTC and CODE_TIME_REF = "UTC".	
SERVICE_TIMESHEET	CODE_TIME_REF	M	TRACON ?		y	Assume all times are converted to UTC and CODE_TIME_REF = "UTC".	
SERVICE_TIMESHEET	CODE_TIME_REF	M	ATIS ?		y	Assume all times are converted to UTC and CODE_TIME_REF = "UTC".	
SERVICE_TIMESHEET	TIME_REL_EVENT_WEF	O			n		Assuming NASR does not use event (sunrise, sunset).
SIGNIFICANT_POINT_IN_AS	TXT_RMK	O			n		
SIGNIFICANT_POINT_IN_AS	CODE_TYPE	O			n		
SIGNIFICANT_POINT_IN_AS	DT_TIL	M			n		
SIGNIFICANT_POINT_IN_AS	DT_WEF	P			n		
SIGNIFICANT_POINT_IN_AS_M							
SIGNIFICANT_POINT_M							

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
SPECIAL_DATE	DT_TIL	M			n		
SPECIAL_DATE	TXT_NAME	O			n		
SPECIAL_DATE	TXT_RMK	O			n		
SPECIAL_DATE	DT_WEF	P			n		
SPECIAL_DATE							
SPECIAL_DATE_M	CODE_TYPE	P			n		
SPECIAL_DATE_M							
SPECIAL_DATE_M	DATE_DAY	P			n		
SPECIAL_DATE_M	DATE_YEAR	P			n		
SWY	TXT_PROFILE	O			n		
SWY	DT_WEF	P			y		
SWY	VAL_LEN	O	RUNWAY_END	SWY_LEN	y	Direct map (UOM_DIM = 'FT')	
SWY	UOM_DIM	O			y	map 'FT'	KM (kilometers); M (meters); FT (feet); NM (nautical miles)
SWY	TXT_DESCR_STRENGTH	O			y		E.g., 80/R/B/W/T for a PCN type value
SWY	TXT_RMK	O			y		
SWY	TXT_MARKING	O			y		

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
SWY	CODE_STRENGTH	O	RUNWAY	PCN	y	If not blank or not null, map "PCN"	SIWL (single isolated wheel load); PCN (pavement classification number)
SWY	CODE_COND_SFC	O			y		GOOD, FAIR, POOR
SWY	VAL_WID	O			n		
SWY	CODE_COMPOSITION	O	RUNWAY_SURFACE_TYPE	SURFACE_TYPE_CODE	y	if = 'CONC' map 'conc'; if = 'ASPH' map 'asphalt'; if = 'ASPH-TURF' map 'asp+gra'; if = ASPH-CONC' map 'conc+asp'; if = 'TURF' map 'grass'; if = 'WATER' map 'water'; if = 'CONC-TURF' map conc+gra; if = 'DIRT' map ??; if = 'ASPH-DIRT' ??; if = 'ASPH-GRVL' ?	AIXM: "concrete", "asphalt", "asp+gra", "conc+asp", "grass", "water", "conc+gra", "sand"
SWY	DT_TIL	M			y		
SWY	CODE_STS	O			y		Status: PARKED (parked aircraft), CLSD, FAILAID (failure/irr op of visual aid), WIP, BKN (broken pavement), SPOWER (secondary power)
SWY_M							
TFC_FLOW_RESTR	TXT_DESCR	O			n		

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
TFC_FLOW_RESTR	DT_WEF	P			n		
TFC_FLOW_RESTR	TXT_RMK_WORK_HR	O			n		
TFC_FLOW_RESTR	TXT_OPR_GOAL	O			n		
TFC_FLOW_RESTR	DT_TIL	M			n		
TFC_FLOW_RESTR	CODE_WORK_HR	M			n		
TFC_FLOW_RESTR	CODE_TYPE	M			n		
TFC_FLOW_RESTR	TXT_REMARK	O			n		
TFC_FLOW_RESTR_M	CODE_ID	P			n		
TFC_FLOW_RESTR_TIM ESHEET	CODE_TIME_REF	M			n	Assume all times are converted to UTC and CODE_TIME_REF = "UTC".	
TFC_FLOW_RESTR_TIM ESHEET	TIME_REL_EVENT_WEEK	O			n		Assuming NASR does not use event (sunrise, sunset).
TFC_FLOW_RESTR_TIM ESHEET	TIME_WEF	P			n		
TFC_FLOW_RESTR_TIM ESHEET	DATE_VALID_WEF	P			n	Map system date (yyyy-mm-dd hh:mm format)	
TFC_FLOW_RESTR_TIM ESHEET	CODE_EVENT_WEF	P			n		Assuming NASR does not use event (sunrise, sunset).

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
TFC_FLOW_RESTR_TIM ESHEET	CODE_DAY	P			n	Default CODE_DAY_TIL = "MON" for continuous ops.	
TFC_FLOW_RESTR_TIM ESHEET	TIME_TIL	O			n	Computed from OPER_HOURS.	
TFC_FLOW_RESTR_TIM ESHEET	TIME_REL_EVENT_TIL	O			n		Assuming NASR does not use event (sunrise, sunset).
TFC_FLOW_RESTR_TIM ESHEET	CODE_EVENT_TIL	O			n		Assuming NASR does not use event (sunrise, sunset).
TFC_FLOW_RESTR_TIM ESHEET	CODE_DAY_TIL	O			n	Default CODE_DAY_TIL = "SUN" for continuous ops.	
TFC_FLOW_RESTR_TIM ESHEET	CODE_COMB_WEF	O			n		Assuming NASR does not use event (sunrise, sunset).
TFC_FLOW_RESTR_TIM ESHEET	DATE_VALID_TIL	M			n	If null, use system date. In either case, convert from date format to yyyy-mm-dd hh:mm	
TFC_FLOW_RESTR_TIM ESHEET	CODE_COMB_TIL	O			n		Assuming NASR does not use event (sunrise, sunset).
TFC_FLOW_RTE	NO_SEQ	P			n		



AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
TFC_FLOW_RTE_ELEMENT	NO_SEQ	P			n		
TFC_FLOW_RTE_ELEMENT_LVL	VAL_DIST_VER_UPPER	O			n		
TFC_FLOW_RTE_ELEMENT_LVL	VAL_DIST_VER_LOWER	P			n		
TFC_FLOW_RTE_ELEMENT_LVL	CODE_DIST_VER_LOWER	P			n		
TFC_FLOW_RTE_ELEMENT_LVL	CODE_DIST_VER_UPPER	O			n		
TFC_FLOW_RTE_ELEMENT_LVL	UOM_DIST_VER_LOWER	P			n		
TFC_FLOW_RTE_ELEMENT_LVL	UOM_DIST_VER_UPPER	O			n		
TLOF	CODE_STS	O			y		Status: PARKED (parked aircraft), CLSD, FAILAID (failure/irrop of visual aid), WIP, BKN (broken pavement), SPOWER (secondary power)

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
TLOF							Corresponds to RWY? Or does FATO? Map to/from this entity only if NASR AIRPORT.SITE_TYPE_CODE = 'H' (heliport)
TLOF	DT_WEF	P			y	Map system date (yyyy-mm-dd hh:mm format)	
TLOF	VAL_SLOPE	O			y		
TLOF	VAL_LEN	O			y		
TLOF	VAL_GEO_ACCURACY	O			y		
TLOF	VAL_ELEV_ACCURACY	O			y		
TLOF	VAL_ELEV	O			y		
TLOF	UOM_GEO_ACCURACY	O			y		KM (kilometers), M (meters), FT (feet), NM (nautical miles)
TLOF	UOM_DIST_VER	O			y	Map 'FT'	M (meters), FL (flight level -- 100s of feet), SM (standard meters -- 10s of meters), FT (feet)
TLOF	UOM_DIM	O			y	map 'FT'	KM (kilometers), M (meters), FT (feet), NM (nautical miles)

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
TLOF	TXT_DESCR_STRENGTH	O			y		
TLOF	TXT_MARKING	O			n		
TLOF	CODE_DATUM	M			y		WGS 84; ED 50, KRASOVSKY
TLOF	DT_TIL	M		DELETE_DATE	y	If null, use system date. In either case, convert from date format to yyyy-mm-dd hh:mm	
TLOF	TXT_RMK	O			y		
TLOF	GEO_LONG	M			y		
TLOF	CODE_STRENGTH	O	RUNWAY	PCN	y	If not blank or not null, map "PCN"	SIWL (single isolated wheel load); PCN (pavement classification number)
TLOF	TXT_VER_DATUM	O			n		
TLOF	VAL_CRC	O			n		
TLOF	VAL_GEOID_UNDULATION	O			n		
TLOF	VAL_WID	O			n		
TLOF	CODE_CLASS_HEL	O			y		No domain values? Performance class of helicopter TDLO serves

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
TLOF	CODE_COMPOSITION	O	RUNWAY_SURFACE_TYPE	SURFACE_TYPE_CODE	y	if = 'CONC' map 'conc'; if = 'ASPH' map 'asphalt'; if = 'ASPH-TURF' map 'asp+gra'; if = ASPH-CONC' map 'conc+asp'; if = 'TURF' map 'grass'; if = 'WATER' map 'water'; if = 'CONC-TURF' map conc+gra; if = 'DIRT' map ??; if = 'ASPH-DIRT' ??; if = 'ASPH-GRVL' ?	AIXM: "concrete", "asphalt", "asp+gra", "conc+asp", "grass", "water", "conc+gra", "sand"
TLOF	CODE_COND_SFC	O			y		GOOD, FAIR, POOR
TLOF	GEO_LAT	M			y		
TLOF_GEOMETRY	UOM_GEO_ACCURACY	O			y		KM (kilometers); M (meters); FT (feet); NM (nautical miles)
TLOF_GEOMETRY	DT_WEF	P			y		
TLOF_GEOMETRY	VAL_GEO_ACCURACY	O			y		
TLOF_GEOMETRY							
TLOF_GEOMETRY	VAL_GEOID_UNDULATION	O			n		
TLOF_GEOMETRY	UOM_DIST_VER	O			n		
TLOF_GEOMETRY	DT_TIL	M			y		
TLOF_GEOMETRY	CODE_DATUM	M			n		

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
TLOF_GEOMETRY	VAL_ELEV_ACCURACY	O			y		
TLOF_GEOMETRY	TXT_RMK	O			y		
TLOF_GEOMETRY_M							
TLOF_LGT_SYS	TXT_DESCR_EMERG	O			y		
TLOF_LGT_SYS	TXT_RMK	O			y		
TLOF_LGT_SYS	TXT_DESCR	O			y		
TLOF_LGT_SYS	DT_TIL	M			y		
TLOF_LGT_SYS	DT_WEF	P			y		
TLOF_LGT_SYS_M	CODE_PSN	P			y		EDGE, AIM (aiming point)
TLOF_LGT_SYS_M							
TLOF_M	TXT_DESIG	P			y		
TLOF_SAFE_AREA	CODE_STS	O			n		AIXM has no 'open' status. AIXM: "PARKED", "CLSD", "FAILAID", "WIP", "BKN", "SPOWER"; NASR: "OPEN", "CLOSED".
TLOF_SAFE_AREA							NASR does not includes. Map to/from this entity only if NASR AIRPORT.SITE_TYPE_CODE = 'H' (heliport)

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
TLOF_SAFE_AREA	DT_WEF	P			n		
TLOF_SAFE_AREA	VAL_WID	O			n		
TLOF_SAFE_AREA	VAL_LEN	O			n		
TLOF_SAFE_AREA	TXT_LGT	O			n		
TLOF_SAFE_AREA	CODE_COMPOSITION	O			n		AIXM: "concrete", "asphalt", "asp+gra", "conc+asp", "grass", "water", "conc+gra", "sand"
TLOF_SAFE_AREA	DT_TIL	M			n		
TLOF_SAFE_AREA	UOM_DIM	O			n		
TLOF_SAFE_AREA	TXT_RMK	O			n		
TLOF_SAFE_AREA_GEO METRY	TXT_RMK	O			n		
TLOF_SAFE_AREA_GEO METRY							
TLOF_SAFE_AREA_GEO METRY	DT_WEF	P			y		
TLOF_SAFE_AREA_GEO METRY	VAL_GEO_ACCURACY	O			y		
TLOF_SAFE_AREA_GEO METRY	VAL_ELEV_ACCURACY	O			y		

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
TLOF_SAFE_AREA_GEO METRY	UOM_GEO_ACCURACY	O			y		KM = kilometres, M = Metres, FT = Fee, NM = Nautical Miles
TLOF_SAFE_AREA_GEO METRY	VAL_GEOID_UNDULATI ON	O			n		
TLOF_SAFE_AREA_GEO METRY	DT_TIL	M			y		
TLOF_SAFE_AREA_GEO METRY	CODE_DATUM	M			n		
TLOF_SAFE_AREA_GEO METRY	UOM_DIST_VER	O			y	Map 'FT'	M (meters); FL (flight level -- 100s of feet); SM (standard meters -- 10s of meters); FT (feet)
TLOF_SAFE_AREA_GEO METRY_M							
TLOF_SAFE_AREA_M							
TLOF_SAFE_AREA_SHA PE_PT							NASR does not include. Map to/from this entity only if NASR AIRPORT.SITE_TYPE_CODE = 'H' (heliport)
TLOF_SAFE_AREA_SHA PE_PT	CODE_TYPE	M			n		

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
TLOF_SAFE_AREA_SHAPE_PT	GEO_LAT	M			n		
TLOF_SAFE_AREA_SHAPE_PT	GEO_LONG	M			n		
TLOF_SAFE_AREA_SHAPE_PT	GEO_LAT_ARC	O			n		
TLOF_SAFE_AREA_SHAPE_PT	GEO_LONG_ARC	O			n		
TLOF_SAFE_AREA_SHAPE_PT	VAL_ELEV	O			n		
TLOF_SAFE_AREA_SHAPE_PT	NO_SEQ	P			n		
TLOF_SHAPE_POINT	GEO_LONG	M			y		
TLOF_SHAPE_POINT							NASR does not include. Map to/from this entity only if NASR AIRPORT.SITE_TYPE_CODE = 'H' (heliport)
TLOF_SHAPE_POINT	NO_SEQ	P			y		
TLOF_SHAPE_POINT	VAL_ELEV	O			n		
TLOF_SHAPE_POINT	GEO_LAT_ARC	O			n		
TLOF_SHAPE_POINT	GEO_LAT	M			y		



AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
TLOF_SHAPE_POINT	CODE_TYPE	M			y		ABE (arc by edge); GRC (great circle); RHL (rhumb Line), CCA (counterclockwise arc); CWA (clockwise arc); END (last point); CIR (circle)
TLOF_SHAPE_POINT	GEO_LONG_ARC	O			n		
TWY	TXT_MARKING	O			n		
TWY	CODE_TYPE	M			n		AIRTWY (Air TWY); ARPON (Apron TWY); BYPASS (bypass/holding bay); EXIT (exit/turnoff); GNDTWY (groud n TWY); LI_TLANE (Lead-in taxilane); LO_TLANE (lead-out taxilane); PAR (parallel); RAPIDEX (rapid exit/turnoff); S_TLANE (Gate/std taxilane)
TWY	DT_WEF	P			n		
TWY							NASR does not include.
TWY	VAL_WID	O			n		
TWY	UOM_WID	O			n		KM = kilometres, M = Metres, FT = Fee, NM = Nautical Miles

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
TWY	TXT_RMK	O			n		
TWY	TXT_DESCR_STRENGTH	O			n		E.g., 80/R/B/W/T for a PCN type value
TWY	CODE_STS	O			n		??How to map? AIXM has no 'open' status. AIXM: "PARKED", "CLSD", "FAILAID", "WIP", "BKN", "SPOWER"; NASR: "OPEN", "CLOSED". Relationship to lighting aids??
TWY	CODE_STRENGTH	O			n		
TWY	CODE_COND_SFC	O			n		GOOD, FAIR, POOR
TWY	DT_TIL	M			n		
TWY	CODE_COMPOSITION	O			n		AIXM: "concrete", "asphalt", "asp+gra", "conc+asp", "grass", "water", "conc+gra", "sand"
TWY_CLINE_POINT	VAL_CRC	O			n		
TWY_CLINE_POINT	DT_WEF	P			n		

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
TWY_CLINE_POINT	UOM_DIST_VER	O			y	Map 'FT'	M (meters); FL (flight level -- 100s of feet); SM (standard meters -- 10s of meters); FT (feet)
TWY_CLINE_POINT	VAL_GEOID_UNDULATION	O			n		
TWY_CLINE_POINT	VAL_GEO_ACCURACY	O			n		
TWY_CLINE_POINT							NASR does not include.
TWY_CLINE_POINT	VAL_ELEV	O			n		MSL
TWY_CLINE_POINT	TXT_VER_DATUM	O			n		
TWY_CLINE_POINT	TXT_RMK	O			n		
TWY_CLINE_POINT	NO_SEQ	M			n		
TWY_CLINE_POINT	DT_TIL	M			n		
TWY_CLINE_POINT	CODE_DATUM	M			n		
TWY_CLINE_POINT	VAL_ELEV_ACCURACY	O			n		
TWY_CLINE_POINT	UOM_GEO_ACCURACY	O			n		KM (kilometers); M (meters); FT (feet); NM (nautical miles)
TWY_CLINE_POINT_M	GEO_LONG	P			n		
TWY_CLINE_POINT_M							NASR does not include.
TWY_CLINE_POINT_M	GEO_LAT	P			n		

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
TWY_HOLDING_POSITION							NASR does not include.
TWY_HOLDING_POSITION	TXT_LGT	O			n		
TWY_HOLDING_POSITION	TXT_MARKING	O			n		
TWY_HOLDING_POSITION	TXT_RMK	O			n		
TWY_HOLDING_POSITION	DT_WEF	P			n		
TWY_HOLDING_POSITION	DT_TIL	M			n		
TWY_HOLDING_POSITION_M							
TWY_INTERSECTION	TXT_RMK	O			n		
TWY_LGT_SYS	DT_TIL	M			n		
TWY_LGT_SYS	TXT_DESCR	O			n		
TWY_LGT_SYS	TXT_DESCR_EMERG	O			n		
TWY_LGT_SYS	TXT_RMK	O			n		
TWY_LGT_SYS	DT_WEF	P			n		
TWY_LGT_SYS							NASR does not include.

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
TWY_LGT_SYS_M	CODE_PSN	P			n		END, HOLD, CL (centerline), EDGE, RWY (RWY intersections)
TWY_M	TXT_DESIG	P			n		
TWY_M							NASR does not include.
UNIT	GEO_LAT	O	AIRPORT	LAT_SEC	y	Convert LAT_DEG, LAT_MIN, LAT_SEC to character. Concatenate LAT_DEG, LAT_MIN, LAT_SEC, LAT_HEMIS	
UNIT	DT_WEF	P	[VARIOUS]		y	Use system date. Convert from date format to yyyy-mm-dd hh:mm	
UNIT	GEO_LONG	O	AIRPORT	LONG_HEMIS	y	Convert LONG_DEG, LONG_MIN, LONG_SEC to character Concatenate LONG_DEG, LONG_MIN, LONG_SEC, LONG_HEMIS	
UNIT	GEO_LONG	O	AIRPORT	LONG_SEC	y	Convert LONG_DEG, LONG_MIN, LONG_SEC to character Concatenate LONG_DEG, LONG_MIN, LONG_SEC, LONG_HEMIS	

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
UNIT	GEO_LONG	O	AIRPORT	LONG_MIN	y	Convert LONG_DEG, LONG_MIN, LONG_SEC to character. Concatenate LONG_DEG, LONG_MIN, LONG_SEC, LONG_HEMIS	
UNIT							
UNIT	GEO_LAT	O	AIRPORT	LAT_HEMIS	y	Convert LAT_DEG, LAT_MIN, LAT_SEC to character. Concatenate LAT_DEG, LAT_MIN, LAT_SEC, LAT_HEMIS	
UNIT	GEO_LONG	O	AIRPORT	LONG_DEG	y	Convert LONG_DEG, LONG_MIN, LONG_SEC to character. Concatenate LONG_DEG, LONG_MIN, LONG_SEC, LONG_HEMIS	
UNIT	GEO_LAT	O	AIRPORT	LAT_DEG	y	Convert LAT_DEG, LAT_MIN, LAT_SEC to character. Concatenate LAT_DEG, LAT_MIN, LAT_SEC, LAT_HEMIS	
UNIT	CODE_DATUM	O			y	Map 'WGS 84'	why CODE_DATUM optional in AIXM on occasion??
UNIT	TXT_RMK	O			n		

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
UNIT	DT_TIL	M	[VARIOUS]	DELETE_DATE	y	If null, use system date + 120. In either case, convert from date format to yyyy-mm-dd hh:mm	
UNIT	CODE_TYPE	M			y		Not a direct map. Select whichever NASR facility applies. Use AIXM codes or add a new code.
UNIT	CODE_CLASS	M			y	Default to 'OTHER' since not 'ICAO' class	
UNIT	GEO_LAT	O	AIRPORT	LAT_MIN	y	Convert LAT_DEG, LAT_MIN, LAT_SEC to character. Concatenate LAT_DEG, LAT_MIN, LAT_SEC, LAT_HEMIS	
UNIT_ADDRESS	DT_WEF	P	[VARIOUS]		y	Use system date. Convert from date format to yyyy-mm-dd hh:mm	
UNIT_ADDRESS	TXT_RMK	O			n		
UNIT_ADDRESS	DT_TIL	M	[VARIOUS]	DELETE_DATE	y	If null, use system date + 120. In either case, convert from date format to yyyy-mm-dd hh:mm	
UNIT_ADDRESS	TXT_ADDRESS	M			y		

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
UNIT_ADDRESS_M	NO_SEQ	P			n		
UNIT_ADDRESS_M	CODE_TYPE	P			y		Not a direct map from a NASR attribute. Select which type of address applies from the AIXM code set.
UNIT_ADDRESS_M							
UNIT_ASSOC	TXT_RMK_WORK_HR	O			n		
UNIT_ASSOC	DT_WEF	P			n		
UNIT_ASSOC	DT_TIL	M			n		
UNIT_ASSOC	CODE_WORK_HR	M			n		
UNIT_ASSOC	TXT_RMK	O			n		
UNIT_ASSOC							
UNIT_ASSOC_M	CODE_TYPE	P			n		
UNIT_ASSOC_M							Associations between NASR units do not explicitly exist. Again, the relationships span NASR and are m:n and not mappable in a straightforward way.



AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
UNIT_ASSOC_TIMESHEET	CODE_EVENT_TIL	O			n		Assuming NASR does not use event (sunrise, sunset).
UNIT_ASSOC_TIMESHEET							
UNIT_ASSOC_TIMESHEET	TIME_WEF	P			y		
UNIT_ASSOC_TIMESHEET	DATE_VALID_WEF	P			y	Map system date (yyyy-mm-dd hh:mm format)	
UNIT_ASSOC_TIMESHEET	CODE_DAY	P			y	Computed from OPER_HOURS. Default CODE_DAY_TIL = "MON" for continuous ops.	
UNIT_ASSOC_TIMESHEET	CODE_EVENT_WEF	P			n		Assuming NASR does not use event (sunrise, sunset).
UNIT_ASSOC_TIMESHEET	TIME_TIL	O			y		
UNIT_ASSOC_TIMESHEET	CODE_DAY_TIL	O			y	Computed from NAVIGATION_AID.OPER_HOURS. Default CODE_DAY_TIL = "SUN" for continuous ops.	

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
UNIT_ASSOC_TIMESHEET	TIME_REL_EVENT_TILT	O			n		Assuming NASR does not use event (sunrise, sunset).
UNIT_ASSOC_TIMESHEET	CODE_COMB_WEF	O			n		Assuming NASR does not use event (sunrise, sunset).
UNIT_ASSOC_TIMESHEET	CODE_COMB_TILT	O			n		Assuming NASR does not use event (sunrise, sunset).
UNIT_ASSOC_TIMESHEET	DATE_VALID_TILT	M		DELETE_DATE	y	If null, use system date. In either case, convert from date format to yyyy-mm-dd hh:mm	
UNIT_ASSOC_TIMESHEET	CODE_TIME_REF	M			y	Assume all times are converted to UTC and CODE_TIME_REF = "UTC".	
UNIT_ASSOC_TIMESHEET	TIME_REL_EVENT_WEEK	O			n		Assuming NASR does not use event (sunrise, sunset).

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
UNIT_M							The UNIT and ORGANIZATION concept in AIXM is another case where the corresponding NASR elements are scattered throughout NASR. This creates a fairly complex m:n mapping which is not available for capture a few rows of this matrix. Some samples are given
UNIT_M	TXT_NAME	P	[VARIOUS NASR ENTITIES, AS APPROPRIATE, E.G., AIRPORT, ARTCC, FSS, TRACON]]	BNDRY_ARTCC_ID, RESPONSIBILITY_A RTCC_ID, NOTAM_ID	y		
RWY_PROTECT_GEOMETRY	CODE_DATUM	M			y		
RWY_DIRECTION	TXT_RMK	O			n		
RWY_CLINE_POINT	CODE_DATUM	M			y		
RWY_CLINE_POINT	VAL_CRC	O			y		
OBSTACLE	TXT_VER_DATUM	O			y		

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
AD_HP_NAV_AID	DT_WEF	P	na	OPER_HOURS	n		NASR doesn't normally associate NAVAID with Airport. NAVAID is associated with an ARTCC.
AD_HP_NAV_AID	TXT_RMK	O	na	na	n		NASR doesn't normally associate NAVAID with Airport. NAVAID is associated with an ARTCC.
AD_HP_NAV_AID	DT_TIL	M	na	na	n		NASR doesn't normally associate NAVAID with Airport. NAVAID is associated with an ARTCC.
AD_HP_NAV_AID_M	z-no attributes				n		NASR doesn't normally associate NAVAID with Airport. NAVAID is associated with an ARTCC.
AIC	CODE_SERIES	P	na	na	n		
AIC	DATE_PUBL	P	na	na	n		
AIC	NO_SEQ	P	na	na	n		
AIC	TXT_RMK	O	na	na	n		

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
AIC	LOB_CONTENT	M	na	na	n		
AIC_FOR_STATE	TXT_RMK	O	na	na	n		
AIP	DT_WEF	P	na	na	n		
AIP	TXT_RMK	O	na	na	n		
AIP	CODE_FLT_RULE	M	na	na	n		
AIP	CODE_TYPE	M	na	na	n		
AIP	DT_TIL	M	na	na	n		
AIP_FOR_STATE	TXT_RMK	O	na	na	n		
AIP_M	TXT_NAME	P	na	na	n		
AIP_PART	CODE_ID	P	na	na	n		
AIP_PART	DT_WEF	P	na	na	n		
AIP_PART	TXT_RMK	O	na	na	n		
AIP_PART	DT_TIL	M	na	na	n		
AIP_PART	LOB_CONTENT	M	na	na	n		
AIP_SUP	CODE_TYPE	P	na	na	n		
AIP_SUP	DT_VALID	P	na	na	n		
AIP_SUP	NO_SEQ	P	na	na	n		
AIP_SUP	CODE_TIL	O	na	na	n		

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
AIP_SUP	DATE_PUBL	O	na	na	n		
AIP_SUP	DT_TIL	O	na	na	n		
AIP_SUP	TXT_RMK	O	na	na	n		
AIP_SUP	LOB_CONTENT	M	na	na	n		
AIP_SUP	TXT_SUBJECT	M	na	na	n		
ANGLE_INDICATION	DT_WEF	P	AWY_POINT	none	y	Map system date (format yyyy-mm-dd hh:mm)	
ANGLE_INDICATION	DT_WEF	P	NAV_FIX	none	y	Map system date (format yyyy-mm-dd hh:mm)	(see ANGLE_INDICATION.general for NAV_FIX.)
ANGLE_INDICATION	DT_WEF	P	VOR_RECEIVER_CHKPT	none	y	Map system date (format yyyy-mm-dd hh:mm)	
ANGLE_INDICATION	TXT_RMK	O	NAV_FIX	none	y		(see ANGLE_INDICATION.general for NAV_FIX.)
ANGLE_INDICATION	TXT_RMK	O	VOR_RECEIVER_CHKPT	GND_CHK_DESC	y	direct	For ANGLE_INDICATION.TXT_RMK associated with NAV_SYS_CHECKPOINT_M with CODE_TYPE = VOR

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
ANGLE_INDICATION	DT_TIL	M			y	VOR_RECEIVER_CHKPT.BRG maps directly to ANGLE_INDICATION.VAL_ANGLE_BRG.	VOR_RECEIVER_CHKPT must be mapped to NAV_SYS_CHECKPOINT,NAV_SYS_CHECKPOINT_M.
ANGLE_INDICATION	DT_TIL	M	AWY_POINT	DELETE_DATE	y	If null use system date. In either case, convert from date format to yyyy-mm-dd hh:mm	
ANGLE_INDICATION	DT_TIL	M	NAV_FIX	DELETE_DATE	y	If null use system date. In either case, convert from date format to yyyy-mm-dd hh:mm	(see ANGLE_INDICATION.general for NAV_FIX.)
ANGLE_INDICATION	DT_TIL	M	VOR_RECEIVER_CHKPT	DELETE_DATE	y	If null use system date. In either case, convert from date format to yyyy-mm-dd hh:mm	
ANGLE_INDICATION	VAL_ANGLE_BRG	M	AWY_POINT	TRK_ANGLE_OBND	y	direct	(see ANGLE_INDICATION.general comment) Part of RNAV based point.
ANGLE_INDICATION	VAL_ANGLE_BRG	M	AWY_POINT	VIA_NEXT_RADIAL	y	direct	(see ANGLE_INDICATION.general comment) Part of dog-leg.

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
ANGLE_INDICATION	VAL_ANGLE_BRG	M	AWY_POINT	VIA_RADIAL	y	direct	(see ANGLE_INDICATION.gen eral comment) Part of dog- leg.
ANGLE_INDICATION	VAL_ANGLE_BRG	M	NAV_FIX	BEARING	y	direct	(see ANGLE_INDICATION.gen eral for NAV_FIX.)
ANGLE_INDICATION	VAL_ANGLE_BRG	M	VOR_RECEIVER_CHKPT	BRG	y	Direct Map	
ANGLE_INDICATION	z-general comment		AWY_POINT		y		In NASR, AWY_POINT has three groups of attributes that can be used to define a point using radials an distances. The angle values could be mapped to an ANGLE_INDICATION. The distance part would be mapped to a DISTANCE_INDICATION _M. Both ANGLE_INDICATION



AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
ANGLE_INDICATION	z-general comment		NAV_FIX	general	y		In NASR a FIX may be associated in the NAV_FIX table with a radial and distance specified. These will map to a DISTANCE_INDICATION and ANGLE_INDICATION. These will in turn be associated with a SIGNIFICANT_POINT_M and it will be associated with the DESIGNA
ANGLE_INDICATION_M	z-no attributes				y		
DESIGNATED_POINT	DT_WEF	P	FIX	none	y	Map system date (yyyy-mm-dd hh:mm format)	
DESIGNATED_POINT	TXT_NAME	O	FIX	none	n		
DESIGNATED_POINT	TXT_RMK	O	FIX	none	n		
DESIGNATED_POINT	UOM_GEO_ACCURACY	O	FIX	nonw	n	Not available.	
DESIGNATED_POINT	VAL_CRC	O	FIX	none	y	Calculated as per AIXM specification using derived GEO_LAT and GEO_LONG.	
DESIGNATED_POINT	VAL_GEO_ACCURACY	O	FIX	none	n	Not available.	

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
DESIGNATED_POINT	CODE_DATUM	M	FIX	none	y	Not in NASR. Set to "WGE" [WGS-84 (GRS-80)] as default.	
DESIGNATED_POINT	CODE_TYPE	M	FIX	none	y	Set to "OTHER" or define new value for NASE fix, e.g. "NASR_FIX"	
DESIGNATED_POINT	DT_TIL	M	FIX	DELETE_DATE	y	If null use system date. In either case, convert from date format to yyyy-mm-dd hh:mm	
DESIGNATED_POINT_M	CODE_ID	P	FIX	FIX_ID	y		
DESIGNATED_POINT_M	GEO_LAT	P	FIX	LAT_DEG, LAT_MIN, LAT_SEC, LAT_HEMIS	y	GEO_LAT computed from four NASR attributes.	
DESIGNATED_POINT_M	GEO_LONG	P	FIX	LONG_DEG, LONG_MIN, LONG_SEC, LONG_HEMIS	y	GEO_LONG computed from four NASR attributes.	
DISTANCE_INDICATION	DT_WEF	P	AWY_POINT	none	y	Map system date (yyyy-mm-dd hh:mm format)	
DISTANCE_INDICATION	DT_WEF	P	NAV_FIX	none	y	Map system date (yyyy-mm-dd hh:mm format)	
DISTANCE_INDICATION	TXT_RMK	O	AWY_POINT	none	n		
DISTANCE_INDICATION	TXT_RMK	O	NAV_FIX	none	n		

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
DISTANCE_INDICATION	DT_TIL	M	AWY_POINT	DELETE_DATE	y	If null use system date. In either case, convert from date format to yyyy-mm-dd hh:mm	
DISTANCE_INDICATION	DT_TIL	M	NAV_FIX	DELETE_DATE	y	If null use system date. In either case, convert from date format to yyyy-mm-dd hh:mm	
DISTANCE_INDICATION	UOM_DIST	M	AWY_POINT	none	y	Set UOM_DIST ="NM" .	
DISTANCE_INDICATION	UOM_DIST	M	NAV_FIX	none	y	Set UOM_DIST ="NM" .	
DISTANCE_INDICATION	VAL_DIST	M	AWY_POINT	TRK_ANGLE_OBND_LENGTH	y	direct	(see DISTANCE_INDICATION. general) For RNAV point.
DISTANCE_INDICATION	VAL_DIST	M	AWY_POINT	VIA_NEXT_DIST	y		(see DISTANCE_INDICATION. general) Part if dog-leg.
DISTANCE_INDICATION	VAL_DIST	M	AWY_POINT	VIA_DIST	y		(see DISTANCE_INDICATION. general) Part if dog-leg.
DISTANCE_INDICATION	VAL_DIST	M	NAV_FIX	DISTANCE	y		(see DISTANCE_INDICATION. genera from NAV_FIXI)

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
DISTANCE_INDICATION	z-general comment		AWY_POINT	general	n		In NASR, AWY_POINT has three groups of attributes that can be used to define a point using radials and distances. The angle values could be mapped to an ANGLE_INDICATION. The distance part would be mapped to a DISTANCE_INDICATION_M. Both ANGLE_INDICATION
DISTANCE_INDICATION	z-general comment		NAV_FIX	general	y		In NASR a FIX may be associated in the NAV_FIX table with a radial and distance specified. These will map to a DISTANCE_INDICATION and ANGLE_INDICATION. These will in turn be associated with a SIGNIFICANT_POINT_M and it will be associated with the DESIGNA

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
DISTANCE_INDICATION_M	z-no attributes				y		
DME	DT_WEF	P		none	y	Map system date (yyyy-mm-dd hh:mm format)	
DME	CODE_CHANNEL	O	NAVIGATION_AID	FREQ	y	Convert frequency to matching channel code.	
DME	CODE_EM	O	none	none	y	CODE_EM must be "PON" [see AIXM 3.1 documentation].	
DME	CODE_TYPE	O	none	none	n		
DME	TXT_NAME	O	none	none	y	Option to default it to DME_M.CODE_ID.	
DME	TXT_RMK	O	none	none	n		
DME	TXT_RMK_WORK_HR	O	none	none	n		
DME	TXT_VER_DATUM	O	none	none	y	Default = "WGS 84"	
DME	UOM_DISPLACE	O	none	none	n		
DME	UOM_DIST_VER	O	none	none	n		
DME	UOM_GEO_ACCURACY	O	NAVIGATION_AID	SURVEY_ACCURACY_CODE	y	May be able to convert code.	
DME	UOM_GHOST_FREQ	O	none	none	n		

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
DME	VAL_CRC	O	NAVIGATION_AID	none	y	Calculated as per AIXM specification using derived GEO_LAT and GEO_LONG.	
DME	VAL_DISPLACE	O	none	none	n		
DME	VAL_ELEV	O	NAVIGATION_AID	ELV	y	direct	
DME	VAL_ELEV_ACCURACY	O	NAVIGATION_AID	SURVEY_ACCURACY_CODE	y	May be able to conver code.	
DME	VAL_GEO_ACCURACY	O	NAVIGATION_AID	SURVEY_ACCURACY_CODE	y	May be able to conver code.	
DME	VAL_GEOID_UNDULATION	O	none	none	n	[determined by CODE_DATUM?]	
DME	VAL_GHOST_FREQ	O	none	none	n		
DME	CODE_DATUM	M	none	none	y	Not in NASR. Set to "WGE" [WGS-84 (GRS-80)] as default.	
DME	CODE_WORK_HR	M	NAVIGATION_AID	none	y	Default CODE_WORK_HR = "TIMSH" [as specified in the related timesheet].	
DME	DT_TIL	M	NAVIGATION_AID	DELETE_DATE	y	If null use system date. In either case, convert from date format to yyyy-mm-dd hh:mm	

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
DME_LIMITATION	DT_WEF	P	none	none	y	Map system date (yyyy-mm-dd hh:mm format)	
DME_LIMITATION	CODE_DIST_VER_UPPER	O	none	none	n		
DME_LIMITATION	TXT_RMK	O	none	none	n		
DME_LIMITATION	UOM_DIST_VER_UPPER	O	none	none	n		
DME_LIMITATION	VAL_ANGLE_SCALLOP	O	none	none	n		
DME_LIMITATION	VAL_DIST_OUTER	O	none	none	n		
DME_LIMITATION	VAL_DIST_VER_UPPER	O	none	none	n		
DME_LIMITATION	CODE_DIST_VER_LOWER	M	none	none	n		Not part of NASR.
DME_LIMITATION	DT_TIL	M	none	none	n		
DME_LIMITATION	UOM_DIST_HORZ	M	none	none	n		
DME_LIMITATION	UOM_DIST_VER_LOWER	M	none	none	n		
DME_LIMITATION_M	CODE_TYPE	P	none	none	n		
DME_LIMITATION_M	VAL_ANGLE_FM	P	none	none	n		
DME_LIMITATION_M	VAL_ANGLE_TO	P	none	none	n		
DME_LIMITATION_M	VAL_DIST_INNER	P	none	none	n		

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
DME_LIMITATION_M	VAL_DIST_VER_LOWER	P	none	none	n		
DME_M	CODE_ID	P	NAVIGATION_AID	NAV_ID	y	Direct	
DME_M	GEO_LAT	P	NAVIGATION_AID	LAT_DEG, LAT_MIN, LAT_SEC, LAT_HEMIS	y	GEO_LAT computed from four NASR attributes.	
DME_M	GEO_LONG	P	NAVIGATION_AID	LONG_DEG, LONG_MIN, LONG_SEC, LONG_HEMIS	y	GEO_LONG computed from four NASR attributes.	
DME_TIMESHEET	CODE_DAY	P	NAVIGATION_AID	OPER_HOURS	y	Computed from NAVIGATION_AID.OPER_HOURS. Default CODE_DAY_TIL = "MON" for continuous ops.	
DME_TIMESHEET	CODE_EVENT_WEF	P			n		Assuming NASR does not use event (sunrise, sunset).
DME_TIMESHEET	CODE_TYPE	P	NAVIGATION_AID	OPER_HOURS	y	If OPER_HOURS is not 24hrs the CODE_TYPE = "WORK" [working hour] else CODE_TYPE = "UNMO" [unmonitored].	
DME_TIMESHEET	DATE_VALID_WEF	P	NAVIGATION_AID	none	y	Map system date (yyyy-mm-dd hh:mm format)	



AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
DME_TIMESHEET	TIME_WEF	P	NAVIGATION_AID	OPER_HOURS	y	Computed from NAVIGATION_AID.OPER_HOURS.	
DME_TIMESHEET	CODE_COMB_TIL	O			n		Assuming NASR does not use event (sunrise, sunset).
DME_TIMESHEET	CODE_COMB_WEF	O			n		Assuming NASR does not use event (sunrise, sunset).
DME_TIMESHEET	CODE_DAY_TIL	O	NAVIGATION_AID	OPER_HOURS	y	Computed from NAVIGATION_AID.OPER_HOURS. Default CODE_DAY_TIL = "SUN" for continuous ops.	
DME_TIMESHEET	CODE_EVENT_TIL	O			n		Assuming NASR does not use event (sunrise, sunset).
DME_TIMESHEET	TIME_REL_EVENT_TIL	O			n		Assuming NASR does not use event (sunrise, sunset).
DME_TIMESHEET	TIME_REL_EVENT_WEF	O			n		Assuming NASR does not use event (sunrise, sunset).

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
DME_TIMESHEET	TIME_TIL	O	NAVIGATION_AID	OPER_HOURS	y	Computed from NAVIGATION_AID.OPER_HOURS.	
DME_TIMESHEET	CODE_TIME_REF	M	none	none	y	Assume all times are converted to UTC and CODE_TIME_REF = "UTC".	
DME_TIMESHEET	DATE_VALID_TIL	M	NAVIGATION_AID	DELETE_DATE	y	If null use system date. In either case, convert from date format to yyyy-mm-dd hh:mm	
ELECTRONIC_AIC	CODE_TYPE	P			n		
ELECTRONIC_AIC	TXT_RMK	O			n		
ELECTRONIC_AIC	LOB_IMAGE	M			n		
ELECTRONIC_AIP	CODE_TYPE	P			n		
ELECTRONIC_AIP	DT_VALID	P	na	na	n		
ELECTRONIC_AIP	TXT_RMK	O			n		
ELECTRONIC_AIP	LOB_IMAGE	M			n		
ELECTRONIC_AIP_SUP	CODE_TYPE	P			n		
ELECTRONIC_AIP_SUP	TXT_RMK	O			n		
ELECTRONIC_AIP_SUP	LOB_IMAGE	M			n		

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
FATO_DIRECTION_STAR	DT_WEF	P		none	n	Map system date (yyyy-mm-dd hh:mm format)	NAST associates SID/STAR only with runway ends.
FATO_DIRECTION_STAR	TXT_RMK	O			n		NAST associates SID/STAR only with runway ends.
FATO_DIRECTION_STAR	DT_TIL	M		DELETE_DATE	n	If null use system date. In either case, convert from date format to yyyy-mm-dd hh:mm	NAST associates SID/STAR only with runway ends.
FATO_DIRECTION_STAR_M	z-no attributes				y		
IAP	DT_WEF	P		none	y	Map system date (yyyy-mm-dd hh:mm format)	
IAP	CODE_RNP	O			n		
IAP	TXT_DESCR_COM_FAIL	O			n		
IAP	TXT_DESCR_MISS	O			n		
IAP	TXT_RMK	O	SID_STAR_REMARK	REMARK	y	Completeness of descriptive remark uncertain.	
IAP	CODE_TYPE_RTE	M			n		

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
IAP	DT_TIL	M		DELETE_DATE	y	If null use system date. In either case, convert from date format to yyyy-mm-dd hh:mm	
IAP_M	CODE_CAT_ACFT	P			n		
IAP_M	CODE_TRANS_ID	P			n		
IAP_M	TXT_DESIG	P	SID_STAR	SID_STAR_NAME	y		
IAP_USAGE	DT_WEF	P		none	y	Map system date (yyyy-mm-dd hh:mm format)	
IAP_USAGE	TXT_RMK	O	SID_STAR_REMARK	REMARK	y	Completeness of descriptive remark uncertain.	
IAP_USAGE	TXT_RMK_WORK_HR	O			n		
IAP_USAGE	CODE_WORK_HR	M			n		
IAP_USAGE	DT_TIL	M		DELETE_DATE	y	If null use system date. In either case, convert from date format to yyyy-mm-dd hh:mm	
IAP_USAGE_M	CODE_RTE_AVBL	P			n		
IAP_USAGE_TIMESHEET	CODE_DAY	P			n		
IAP_USAGE_TIMESHEET	CODE_EVENT_WEF	P			n		
IAP_USAGE_TIMESHEET	DATE_VALID_WEF	P			n		

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
IAP_USAGE_TIMESHEET	TIME_WEF	P			n		
IAP_USAGE_TIMESHEET	CODE_COMB_TIL	O			n		
IAP_USAGE_TIMESHEET	CODE_COMB_WEF	O			n		
IAP_USAGE_TIMESHEET	CODE_DAY_TIL	O			n		
IAP_USAGE_TIMESHEET	CODE_EVENT_TIL	O			n		
IAP_USAGE_TIMESHEET	TIME_REL_EVENT_TIL	O			n		
IAP_USAGE_TIMESHEET	TIME_REL_EVENT_WEF	O			n		
IAP_USAGE_TIMESHEET	TIME_TIL	O			n		
IAP_USAGE_TIMESHEET	CODE_TIME_REF	M			n		
IAP_USAGE_TIMESHEET	DATE_VALID_TIL	M			n		
ILS	DT_WEF	P		none	y	Map system date (yyyy-mm-dd hh:mm format)	
ILS	TXT_RMK	O	ILS_REMARK	REMARK	y	Direct	
ILS	CODE_CAT	M	ILS	CATEGORY	y	Direct	
ILS	DT_TIL	M		DELETE_DATE	y	If null use system date. In either case, convert from date format to yyyy-mm-dd hh:mm	

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
ILS_GP	CODE_EM	O			y	Could create code in accordance with 1979 ITU World Administrative Radio Conference.	
ILS_GP	TXT_RMK	O	ILS_REMARK	REMARK	y	Direct	
ILS_GP	TXT_RMK_WORK_HR	O			n		
ILS_GP	TXT_VER_DATUM	O	none	none	y	Default "WGS 84".	
ILS_GP	UOM_DIST_VER	O	none	none	y	Set to NASR default of "FT".	
ILS_GP	UOM_GEO_ACCURACY	O			n		
ILS_GP	UOM_RDH	O	ILS_COMPONENT	SITE_ELEVATION	y	Direct	
ILS_GP	VAL_CRC	O	none	none	y	Computed in accordance with AIXM specification.	
ILS_GP	VAL_ELEV	O	ILS_GLIDE_SLOPE	RWY_ELEV_ADJ_G_S_	y	Direct	
ILS_GP	VAL_ELEV_ACCURACY	O	NAVIGATION_USE	SURVEY_ACCURACY_CODE	y	If there is a FIX associated with the component, there may be required information in the code definition (TBD).	
ILS_GP	VAL_GEO_ACCURACY	O	NAVIGATION_USE	SURVEY_ACCURACY_CODE	y	If there is a FIX associated with the component, there may be required information in the code definition (TBD).	

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
ILS_GP	VAL_GEOID_UNDULATION	O	NAVIGATION_USE	SURVEY_ACCURACY_CODE	y	If there is a FIX associated with the component, there may be required information in the code definition (TBD).	
ILS_GP	VAL_RDH	O	ILS_GLIDE_SLOPE	RWY_ELEV_ADJ_G_S_	y	Direct	
ILS_GP	VAL_SLOPE	O	ILS_GLIDE_SLOPE	G_S_ANGLE	y	Direct	
ILS_GP	CODE_DATUM	M	none	none	y	Set default for NASR = "WGE"	
ILS_GP	CODE_WORK_HR	M			n		
ILS_GP	GEO_LAT	M	ILS_COMPONENT	LAT_DEG, LAT_MIN, LAT_SEC, LAT_HEMIS	y	Compute from NASR components.	
ILS_GP	GEO_LONG	M	ILS_COMPONENT	LONG_DEG, LONG_MIN, LONG_SEC, LONG_HEMIS	y	Compute from NASR components.	
ILS_GP	UOM_FREQ	M	none	none	y	Use predefined NASR default (TBD).	
ILS_GP	VAL_FREQ	M	ILS_GLIDE_SLOPE	G_S_FREQ	y	Direct	
ILS_GP_TIMESHEET	CODE_DAY	P			n		
ILS_GP_TIMESHEET	CODE_EVENT_WEF	P			n		
ILS_GP_TIMESHEET	CODE_TYPE	P			n		

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
ILS_GP_TIMESHEET	DATE_VALID_WEF	P			n		
ILS_GP_TIMESHEET	TIME_WEF	P			n		
ILS_GP_TIMESHEET	CODE_COMB_TIL	O			n		
ILS_GP_TIMESHEET	CODE_COMB_WEF	O			n		
ILS_GP_TIMESHEET	CODE_DAY_TIL	O			n		
ILS_GP_TIMESHEET	CODE_EVENT_TIL	O			n		
ILS_GP_TIMESHEET	TIME_REL_EVENT_TIL	O			n		
ILS_GP_TIMESHEET	TIME_REL_EVENT_WEF	O			n		
ILS_GP_TIMESHEET	TIME_TIL	O			n		
ILS_GP_TIMESHEET	CODE_TIME_REF	M			n		
ILS_GP_TIMESHEET	DATE_VALID_TIL	M			n		
ILS_LLZ	CODE_EM	O	none	none	y	Could create code in accordance with 1979 ITU World Administrative Radio Conference.	
ILS_LLZ	CODE_TYPE_USE_BACK	O	LOCALIZER	BK_COURSE_STAT US_CODE	y		
ILS_LLZ	TXT_RMK	O	ILS_REMARK	REMARK	y	Direct	
ILS_LLZ	TXT_RMK_WORK_HR	O			n		



AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
ILS_LLZ	TXT_VER_DATUM	O	none	none	y	Set to NASR default = "WGS 84".	
ILS_LLZ	UOM_DIST_VER	O	none	none	y	Set to NASR default = "FT".	
ILS_LLZ	UOM_GEO_ACCURACY	O	ILS_COMPONENT	LAT_LONG_SOURCE_CODE	y	LAT_LONG_SOURCE_CODE may be used to trace and accuracy value.	
ILS_LLZ	VAL_CRC	O	none	none	y	Compute as per AIXM.	
ILS_LLZ	VAL_ELEV	O	ILS_COMPONENT	SITE_ELEVATION	y	Direct	
ILS_LLZ	VAL_ELEV_ACCURACY	O	ILS_COMPONENT	LAT_LONG_SOURCE_CODE	y	LAT_LONG_SOURCE_CODE may be used to trace and accuracy value.	
ILS_LLZ	VAL_GEO_ACCURACY	O	ILS_COMPONENT	LAT_LONG_SOURCE_CODE	y	LAT_LONG_SOURCE_CODE may be used to trace and accuracy value.	
ILS_LLZ	VAL_GEOID_UNDULATION	O	ILS_COMPONENT	LAT_LONG_SOURCE_CODE	y	LAT_LONG_SOURCE_CODE may be used to trace and accuracy value.	
ILS_LLZ	VAL_MAG_BRG	O	ILS	APCH_BEAR	y	Direct. Check ILS.APCH_DEG_FLAG to see if bearing is magnetic or true.	

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
ILS_LLZ	VAL_TRUE_BRG	O	ILS	APCH_BEAR	y	Direct. Check ILS.APCH_DEG_FLAG to see if bearing is magnetic or true. Use ILS.MAG_VAR AND ILS.MAG_VAR_HEMIS to convert to true.	
ILS_LLZ	VAL_WID_COURSE	O	LOCALIZER	CRS_WIDTH	y		
ILS_LLZ	CODE_DATUM	M	none	none	y	Not in NASR. Set to "WGE" [WGS-84 (GRS-80)] as default.	
ILS_LLZ	CODE_ID	M	RUNWAY_END	RWY_END_ID	y		
ILS_LLZ	CODE_WORK_HR	M			n		
ILS_LLZ	GEO_LAT	M	ILS_COMPONENT	LAT_DEG, LAT_MIN, LAT_SEC, LAT_HEMIS	y	GEO_LAT computed from four NASR attributes.	
ILS_LLZ	GEO_LONG	M	ILS_COMPONENT	LONG_DEG, LONG_MIN, LONG_SEC, LONG_HEMIS	y	GEO_LONG computed from four NASR attributes.	
ILS_LLZ	UOM_FREQ	M	none	none	y	Use predefined NASR default (TBD).	
ILS_LLZ	VAL_FREQ	M	LOCALIZER	LOC_FREQ	y	Direct	
ILS_LLZ_TIMESHEET	CODE_DAY	P			n		

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
ILS_LLZ_TIMESHEET	CODE_EVENT_WEF	P			n		
ILS_LLZ_TIMESHEET	CODE_TYPE	P			n		
ILS_LLZ_TIMESHEET	DATE_VALID_WEF	P			n		
ILS_LLZ_TIMESHEET	TIME_WEF	P			n		
ILS_LLZ_TIMESHEET	CODE_COMB_TIL	O			n		
ILS_LLZ_TIMESHEET	CODE_COMB_WEF	O			n		
ILS_LLZ_TIMESHEET	CODE_DAY_TIL	O			n		
ILS_LLZ_TIMESHEET	CODE_EVENT_TIL	O			n		
ILS_LLZ_TIMESHEET	TIME_REL_EVENT_TIL	O			n		
ILS_LLZ_TIMESHEET	TIME_REL_EVENT_WEF	O			n		
ILS_LLZ_TIMESHEET	TIME_TIL	O			n		
ILS_LLZ_TIMESHEET	CODE_TIME_REF	M			n		
ILS_LLZ_TIMESHEET	DATE_VALID_TIL	M			n		
ILS_M	z-no attributes				y		
MKR	DT_WEF	P		none	y	Map system date (yyyy-mm-dd hh:mm format)	
MKR	CODE_CLASS	O			n		

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
MKR	CODE_EM	O	none	none	y	Could create code in accordance with 1979 ITU World Administrative Radio Conference.	
MKR	CODE_PSN_ILS	O	MARKER_BEACON	MKR_FAC_TYPE_CODE	y	Convert from NASR codes to AIXM codes.	
MKR	TXT_NAME	O	MARKER_BEACON	COMPASS_LOCATOR_NAME	y	Direct	
MKR	TXT_RMK	O	ILS_REMARK	REMARK	y	Direct	
MKR	TXT_RMK_WORK_HR	O			n		
MKR	TXT_VER_DATUM	O	none	none	y	Set to NASR default = "WGS 84".	
MKR	UOM_DIST_VER	O	none	none	y	Set to NASR default = "FT".	
MKR	UOM_GEO_ACCURACY	O	ILS_COMPONENT	LAT_LONG_SOURCE_CODE	y	LAT_LONG_SOURCE_CODE may be used to trace and accuracy value.	
MKR	VAL_AXIS_BRG	O			n		
MKR	VAL_CRC	O	none	none	y	Compute as per AIXM.	
MKR	VAL_ELEV	O	ILS_COMPONENT	SITE_ELEVATION	y	Direct	
MKR	VAL_ELEV_ACCURACY	O	ILS_COMPONENT	LAT_LONG_SOURCE_CODE	y	LAT_LONG_SOURCE_CODE may be used to trace and accuracy value.	

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
MKR	VAL_GEO_ACCURACY	O	ILS_COMPONENT	LAT_LONG_SOURCE_CODE	y	LAT_LONG_SOURCE_CODE E may be used to trace and accuracy value.	
MKR	VAL_GEOID_UNDULATION	O	ILS_COMPONENT	LAT_LONG_SOURCE_CODE	y	LAT_LONG_SOURCE_CODE E may be used to trace and accuracy value.	
MKR	CODE_DATUM	M	none	none	y	Not in NASR. Set to "WGE" [WGS-84 (GRS-80)] as default.	
MKR	CODE_WORK_HR	M			n		
MKR	DT_TIL	M		DELETE_DATE	y	If null use system date. In either case, convert from date format to yyyy-mm-dd hh:mm	
MKR	UOM_FREQ	M	none	none	y	Set to NASR default = (TBD).	
MKR	VAL_FREQ	M	MARKER_BEACON	LOCATOR_FREQ	y	Direct	
MKR_M	CODE_ID	P	RUNWAY_END	RWY_END_ID	y		
MKR_M	GEO_LAT	P	ILS_COMPONENT	LAT_DEG, LAT_MIN, LAT_SEC, LAT_HEMIS	y	GEO_LAT computed from four NASR attributes.	

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
MKR_M	GEO_LONG	P	ILS_COMPONENT	LONG_DEG, LONG_MIN, LONG_SEC, LONG_HEMIS	y	GEO_LONG computed from four NASR attributes.	
MKR_TIMESHEET	CODE_DAY	P			n		
MKR_TIMESHEET	CODE_EVENT_WEF	P			n		
MKR_TIMESHEET	CODE_TYPE	P			n		
MKR_TIMESHEET	DATE_VALID_WEF	P			n		
MKR_TIMESHEET	TIME_WEF	P			n		
MKR_TIMESHEET	CODE_COMB_TIL	O			n		
MKR_TIMESHEET	CODE_COMB_WEF	O			n		
MKR_TIMESHEET	CODE_DAY_TIL	O			n		
MKR_TIMESHEET	CODE_EVENT_TIL	O			n		
MKR_TIMESHEET	TIME_REL_EVENT_TIL	O			n		
MKR_TIMESHEET	TIME_REL_EVENT_WEF	O			n		
MKR_TIMESHEET	TIME_TIL	O			n		
MKR_TIMESHEET	CODE_TIME_REF	M			n		
MKR_TIMESHEET	DATE_VALID_TIL	M			n		

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
MLS	DT_WEF	P		none	y	Map system date (yyyy-mm-dd hh:mm format)	
MLS	TXT_RMK	O	MLS_REMARK	REMARK	y	Direct	
MLS	CODE_CAT	M	MLS	USAGE	y	Direct (TBD).	
MLS	CODE_CHANNEL	M	P_DME or AZ_BAZ	CHANNEL	y	Direct	
MLS	CODE_ID	M	RUNWAY_END	RWY_END_ID	y	Direct	
MLS	DT_TIL	M		DELETE_DATE	y	If null use system date. In either case, convert from date format to yyyy-mm-dd hh:mm	
MLS_AZIMUTH	CODE_TYPE	P	AZ_BAZ	AZ_TYPE_CODE	y	Direct	
MLS_AZIMUTH	TXT_RMK	O	MLS_REMARK	REMARK	y	Direct	
MLS_AZIMUTH	TXT_RMK_WORK_HR	O			n		
MLS_AZIMUTH	TXT_VER_DATUM	O	none	none	y	Default "WGS 84".	
MLS_AZIMUTH	UOM_DIST_VER	O	none	none	y	Set to NASR default of "FT".	
MLS_AZIMUTH	UOM_GEO_ACCURACY	O	MLS_COMPONENT	LAT_LONG_SOURCE_CODE	y	There may be required information in the code definition (TBD).	
MLS_AZIMUTH	VAL_ANGLE_COVER_LEFT	O			n		

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
MLS_AZIMUTH	VAL_ANGLE_COVER_RIGHT	O			n		
MLS_AZIMUTH	VAL_ANGLE_PROP_LEFT	O	AZ_BAZ	CRS_WIDTH	y	Set VAL_ANGLE_PROP_RIGHT = one half CRS_WIDTH.	
MLS_AZIMUTH	VAL_ANGLE_PROP_RIGHT	O	AZ_BAZ	CRS_WIDTH	y	Set VAL_ANGLE_PROP_RIGHT = one half CRS_WIDTH.	
MLS_AZIMUTH	VAL_CRC	O	none	none	y	Computed in accordance with AIXM specification.	
MLS_AZIMUTH	VAL_ELEV	O	MLS_COMPONENT	SITE_ELEVATION	y	Direct	
MLS_AZIMUTH	VAL_ELEV_ACCURACY	O	NAVIGATION_USE	SURVEY_ACCURACY_CODE	y	If there is a FIX associated with the component, there may be required information in the code definition (TBD).	
MLS_AZIMUTH	VAL_GEO_ACCURACY	O	NAVIGATION_USE	SURVEY_ACCURACY_CODE	y	If there is a FIX associated with the component, there may be required information in the code definition (TBD).	
MLS_AZIMUTH	VAL_GEOID_UNDULATION	O	NAVIGATION_USE	SURVEY_ACCURACY_CODE	y	If there is a FIX associated with the component, there may be required information in the code definition (TBD).	



AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
MLS_AZIMUTH	VAL_MAG_BRG	O	MLS	MAG_VARN, MAG_VARN_HEMIS	y	Combine MAG_VARN, MAG_VARN_HEMIS.	
MLS_AZIMUTH	VAL_TRUE_BRG	O	MLS	APCH_BEAR	y	Direct	
MLS_AZIMUTH	CODE_DATUM	M	none	none	y	Set default for NASR = "WGE"	
MLS_AZIMUTH	CODE_WORK_HR	M			n		
MLS_AZIMUTH	GEO_LAT	M	MLS_COMPONENT	LAT_DEG, LAT_MIN, LAT_SEC, LAT_HEMIS	y	Compute from NASR components.	
MLS_AZIMUTH	GEO_LONG	M	MLS_COMPONENT	LONG_DEG, LONG_MIN, LONG_SEC, LONG_HEMIS	y	Compute from NASR components.	
MLS_AZIMUTH_TIMESHE ET	CODE_DAY	P			n		
MLS_AZIMUTH_TIMESHE ET	CODE_EVENT_WEF	P			n		
MLS_AZIMUTH_TIMESHE ET	CODE_TYPE	P			n		
MLS_AZIMUTH_TIMESHE ET	DATE_VALID_WEF	P			n		
MLS_AZIMUTH_TIMESHE ET	TIME_WEF	P			n		

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
MLS_AZIMUTH_TIMESHEET	CODE_COMB_TIL	O			n		
MLS_AZIMUTH_TIMESHEET	CODE_COMB_WEF	O			n		
MLS_AZIMUTH_TIMESHEET	CODE_DAY_TIL	O			n		
MLS_AZIMUTH_TIMESHEET	CODE_EVENT_TIL	O			n		
MLS_AZIMUTH_TIMESHEET	TIME_REL_EVENT_TIL	O			n		
MLS_AZIMUTH_TIMESHEET	TIME_REL_EVENT_WEF	O			n		
MLS_AZIMUTH_TIMESHEET	TIME_TIL	O			n		
MLS_AZIMUTH_TIMESHEET	CODE_TIME_REF	M			n		
MLS_AZIMUTH_TIMESHEET	DATE_VALID_TIL	M			n		
MLS_ELEVATION	TXT_RMK	O	MLS_REMARK	REMARK	y	Direct	
MLS_ELEVATION	TXT_RMK_WORK_HR	O			n		
MLS_ELEVATION	TXT_VER_DATUM	O	none	none	y	Default "WGS 84".	
MLS_ELEVATION	UOM_DIST_VER	O	none	none	y	Set to NASR default of "FT".	

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
MLS_ELEVATION	UOM_GEO_ACCURACY	O	MLS_COMPONENT	LAT_LONG_SOURC E_CODE	y	There may be required information in the code definition (TBD).	
MLS_ELEVATION	VAL_ANGLE_MNM	O			n		
MLS_ELEVATION	VAL_ANGLE_NML	O	ELEVATION_TRANS	EL_ANGLE	y	Direct	
MLS_ELEVATION	VAL_ANGLE_SPAN	O			n		
MLS_ELEVATION	VAL_CRC	O	none	none	y	Computed in accordance with AIXM specification.	
MLS_ELEVATION	VAL_ELEV	O	MLS_COMPONENT	SITE_ELEVATION	y	Direct	
MLS_ELEVATION	VAL_ELEV_ACCURACY	O	NAVIGATION_USE	SURVEY_ACCURAC Y_CODE	y	If there is a FIX associated with the component, there may be required information in the code definition (TBD).	
MLS_ELEVATION	VAL_GEO_ACCURACY	O	NAVIGATION_USE	SURVEY_ACCURAC Y_CODE	y	If there is a FIX associated with the component, there may be required information in the code definition (TBD).	
MLS_ELEVATION	VAL_GEOID_UNDULATI ON	O	NAVIGATION_USE	SURVEY_ACCURAC Y_CODE	y	If there is a FIX associated with the component, there may be required information in the code definition (TBD).	
MLS_ELEVATION	CODE_DATUM	M	none	none	y	Set default for NASR = "WGE"	

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
MLS_ELEVATION	CODE_WORK_HR	M			n		
MLS_ELEVATION	GEO_LAT	M	MLS_COMPONENT	LAT_DEG, LAT_MIN, LAT_SEC, LAT_HEMIS	y	Compute from NASR components.	
MLS_ELEVATION	GEO_LONG	M	MLS_COMPONENT	LONG_DEG, LONG_MIN, LONG_SEC, LONG_HEMIS	y	Compute from NASR components.	
MLS_ELEVATION_TIMES HEET	CODE_DAY	P			n		
MLS_ELEVATION_TIMES HEET	CODE_EVENT_WEF	P			n		
MLS_ELEVATION_TIMES HEET	CODE_TYPE	P			n		
MLS_ELEVATION_TIMES HEET	DATE_VALID_WEF	P			n		
MLS_ELEVATION_TIMES HEET	TIME_WEF	P			n		
MLS_ELEVATION_TIMES HEET	CODE_COMB_TIL	O			n		
MLS_ELEVATION_TIMES HEET	CODE_COMB_WEF	O			n		

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
MLS_ELEVATION_TIMES HEET	CODE_DAY_TIL	O			n		
MLS_ELEVATION_TIMES HEET	CODE_EVENT_TIL	O			n		
MLS_ELEVATION_TIMES HEET	TIME_REL_EVENT_TIL	O			n		
MLS_ELEVATION_TIMES HEET	TIME_REL_EVENT_WE F	O			n		
MLS_ELEVATION_TIMES HEET	TIME_TIL	O			n		
MLS_ELEVATION_TIMES HEET	CODE_TIME_REF	M			n		
MLS_ELEVATION_TIMES HEET	DATE_VALID_TIL	M			n		
MLS_M	z-no attributes				y		
MSA	VAL_ANGLE_FM	P			n	Minimum safe altitude is NOT part of NASR.	
MSA	VAL_ANGLE_TO	P			n	Minimum safe altitude is NOT part of NASR.	
MSA	VAL_DIST_OUTER	P			n	Minimum safe altitude is NOT part of NASR.	
MSA	TXT_RMK	O			n	Minimum safe altitude is NOT part of NASR.	

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
MSA	VAL_DIST_INNER	O			n	Minimum safe altitude is NOT part of NASR.	
MSA	CODE_DIST_VER	M			n	Minimum safe altitude is NOT part of NASR.	
MSA	UOM_DIST_HORZ	M			n	Minimum safe altitude is NOT part of NASR.	
MSA	UOM_DIST_VER	M			n	Minimum safe altitude is NOT part of NASR.	
MSA	VAL_DIST_VER	M			n	Minimum safe altitude is NOT part of NASR.	
MSA_GROUP	DT_WEF	P		none	y	Minimum safe altitude is NOT part of NASR.	
MSA_GROUP	TXT_RMK	O			n	Minimum safe altitude is NOT part of NASR.	
MSA_GROUP	CODE_TYPE_ANGLE	M			n	Minimum safe altitude is NOT part of NASR.	
MSA_GROUP	DT_TIL	M		DELETE_DATE	y	Minimum safe altitude is NOT part of NASR.	
MSA_GROUP_M	z-no attributes				n	Minimum safe altitude is NOT part of NASR.	
NAV_SYS_CHECKPOINT	DT_WEF	P	VOR_RECEIVER_CHKPT	none	y	Map system date (yyyy-mm-dd hh:mm format)	

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
NAV_SYS_CHECKPOINT	TXT_RMK	O	VOR_RECEIVER_CHKPT	none	n	No map	
NAV_SYS_CHECKPOINT	DT_TIL	M	VOR_RECEIVER_CHKPT	DELETE_DATE	y	If null use system date. In either case, convert from date format to yyyy-mm-dd hh:mm	
NAV_SYS_CHECKPOINT_M	CODE_TYPE	P	VOR_RECEIVER_CHKPT	none	y	NASR has only VOR check points. NAV_SYS_CHECKPOINT_M.CODE_TYPE is set to VOR.	
NDB	DT_WEF	P		none	y	Map system date (yyyy-mm-dd hh:mm format)	
NDB	CODE_CLASS	O	NON_VOR_TYPE, MARKER_BEACON		y	Find navigation aids of type NDB in MARKER_BEACON table to determine if class "L".	
NDB	CODE_EM	O	none	none	y	Could create code in accordance with 1979 ITU World Administrative Radio Conference.	
NDB	CODE_PSN_ILS	O			n		
NDB	TXT_NAME	O	none	none	y	Option to default it to NAVIGATION_AID.NAV_ID.	
NDB	TXT_RMK	O	NAVAID_REMARK	REMARK	y		
NDB	TXT_RMK_WORK_HR	O	none	none	n		

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
NDB	TXT_VER_DATUM	O	none	none	y	Default = "WGS 84"	
NDB	UOM_DIST_VER	O	none	none	n		
NDB	UOM_GEO_ACCURACY	O	NAVIGATION_AID	SURVEY_ACCURACY_CODE	y	May be able to conver code.	
NDB	VAL_CRC	O	NAVIGATION_AID	none	y	Calculated as per AIXM specification using derived GEO_LAT and GEO_LONG.	
NDB	VAL_ELEV	O	NAVIGATION_AID	ELV	y	direct	
NDB	VAL_ELEV_ACCURACY	O	NAVIGATION_AID	SURVEY_ACCURACY_CODE	y	May be able to conver code.	
NDB	VAL_GEO_ACCURACY	O	NAVIGATION_AID	SURVEY_ACCURACY_CODE	y	May be able to conver code.	
NDB	VAL_GEOID_UNDULATION	O	ILS_COMPONENT	LAT_LONG_SOURCE_CODE	y	LAT_LONG_SOURCE_CODE may be used to trace and accuracy value.	
NDB	CODE_DATUM	M	none	none	n	Not in NASR. Set to "WGE" [WGS-84 (GRS-80)] as default.	
NDB	CODE_WORK_HR	M	NAVIGATION_AID	none	y	Default CODE_WORK_HR = "TIMSH" [as specified in the related timesheet].	



AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
NDB	DT_TIL	M		DELETE_DATE	y	If null use system date. In either case, convert from date format to yyyy-mm-dd hh:mm	
NDB	UOM_FREQ	M	none	none	y	Set default = (TBD) for NASR	
NDB	VAL_FREQ	M	NAVIGATION_AID	FREQ	y	direct	
NDB_LIMITATION	DT_WEF	P		none	y	Map system date (yyyy-mm-dd hh:mm format)	
NDB_LIMITATION	CODE_DIST_VER_UPPER	O			n		
NDB_LIMITATION	TXT_RMK	O	none	none	n		
NDB_LIMITATION	UOM_DIST_VER_UPPER	O	NAVIGATION_AID	SURVEY_ACCURACY_CODE	y	May be able to conver code.	
NDB_LIMITATION	VAL_ANGLE_SCALLOP	O	none	none	n		
NDB_LIMITATION	VAL_DIST_OUTER	O	none	none	n		
NDB_LIMITATION	VAL_DIST_VER_UPPER	O	none	none	n		
NDB_LIMITATION	CODE_DIST_VER_LOWER	M			n		

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
NDB_LIMITATION	DT_TIL	M		DELETE_DATE	y	If null use system date. In either case, convert from date format to yyyy-mm-dd hh:mm	
NDB_LIMITATION	UOM_DIST_HORZ	M	none	none	n		
NDB_LIMITATION	UOM_DIST_VER_LOWER	M	none	none	n		
NDB_LIMITATION_M	CODE_TYPE	P			n		
NDB_LIMITATION_M	VAL_ANGLE_FM	P	none	none	n		
NDB_LIMITATION_M	VAL_ANGLE_TO	P	none	none	n		
NDB_LIMITATION_M	VAL_DIST_INNER	P	none	none	n		
NDB_LIMITATION_M	VAL_DIST_VER_LOWER	M	none	none	n		
NDB_M	CODE_ID	P	NAVIGATION_AID	NAV_ID	y	Direct	
NDB_M	GEO_LAT	P	NAVIGATION_AID	LAT_DEG, LAT_MIN, LAT_SEC, LAT_HEMIS	y	GEO_LAT computed from four NASR attributes.	
NDB_M	GEO_LONG	P	NAVIGATION_AID	LONG_DEG, LONG_MIN, LONG_SEC, LONG_HEMIS	y	GEO_LONG computed from four NASR attributes.	

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
NDB_TIMESHEET	CODE_DAY	P	NAVIGATION_AID	OPER_HOURS	y	Computed from NAVIGATION_AID.OPER_HOURS. Default CODE_DAY_TIL = "MON" for continuous ops.	
NDB_TIMESHEET	CODE_EVENT_WEF	P			n		Assuming NASR does not use event (sunrise, sunset).
NDB_TIMESHEET	CODE_TYPE	P	NAVIGATION_AID	OPER_HOURS	y	If OPER_HOURS is not 24hrs the CODE_TYPE = "WORK" [working hourse] else CODE_TYPE = "UNMO" [unmonitored].	
NDB_TIMESHEET	DATE_VALID_WEF	P	NAVIGATION_AID	none	y	Map system date (yyyy-mm-dd hh:mm format)	
NDB_TIMESHEET	TIME_WEF	P	NAVIGATION_AID	OPER_HOURS	y	Computed from NAVIGATION_AID.OPER_HOURS.	
NDB_TIMESHEET	CODE_COMB_TIL	O			n		Assuming NASR does not use event (sunrise, sunset).
NDB_TIMESHEET	CODE_COMB_WEF	O			n		Assuming NASR does not use event (sunrise, sunset).

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
NDB_TIMESHEET	CODE_DAY_TIL	O	NAVIGATION_AID	OPER_HOURS	y	Computed from NAVIGATION_AID.OPER_HOURS. Default CODE_DAY_TIL = "SUN" for continuous ops.	
NDB_TIMESHEET	CODE_EVENT_TIL	O			n		Assuming NASR does not use event (sunrise, sunset).
NDB_TIMESHEET	TIME_REL_EVENT_TIL	O			n		Assuming NASR does not use event (sunrise, sunset).
NDB_TIMESHEET	TIME_REL_EVENT_WEEK	O			n		Assuming NASR does not use event (sunrise, sunset).
NDB_TIMESHEET	TIME_TIL	O	NAVIGATION_AID	OPER_HOURS	y	Computed from NAVIGATION_AID.OPER_HOURS.	
NDB_TIMESHEET	CODE_TIME_REF	M	none	none	y	Assume all times are converted to UTC and CODE_TIME_REF = "UTC".	
NDB_TIMESHEET	DATE_VALID_TIL	M	NAVIGATION_AID	DELETE_DATE	y	If null use system date. In either case, convert from date format to yyyy-mm-dd hh:mm	
NOTAM	CODE_SERIES	P			n		

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
NOTAM	CODE_TYPE	P			n		
NOTAM	NO_SEQ	P			n		
NOTAM	VAL_YEAR	P	none	none	n	NOTAM are not part of NASR.	
NOTAM	CODE_TIL	O			n		
NOTAM	CODE_WEF	O			n		
NOTAM	DT_TIL	O		DELETE_DATE	n	If null use system date. In either case, convert from date format to yyyy-mm-dd hh:mm	
NOTAM	DT_WEF	O		none	n	Map system date (yyyy-mm-dd hh:mm format)	
NOTAM	GEO_NOTAM_LAT	O			n		
NOTAM	GEO_NOTAM_LONG	O			n		
NOTAM	LOB_CONTENT	O			n		
NOTAM	TXT_LIMIT_LOWER	O			n		
NOTAM	TXT_LIMIT_UPPER	O			n		
NOTAM	TXT_NOTAM	O			n		
NOTAM	TXT_RMK	O			n		
NOTAM	TXT_SCHEDULE	O			n		

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
NOTAM	VAL_NOTAM_RADIUS	O			n		
NOTAM	CODE_FIR	M			n		
NOTAM	CODE_LOC	M			n		
NOTAM	CODE_NSC	M			n		
NOTAM	CODE_PURPOSE	M			n		
NOTAM	CODE_SCOPE	M			n		
NOTAM	CODE_TFC	M			n		
NOTAM	VAL_FL_LOWER	M			n		
NOTAM	VAL_FL_UPPER	M			n		
OCA_OCH	CODE_CAT_ACFT	P			n		Obstacle clearance information is with detailed SIAP data that is NOT part of NASR.
OCA_OCH	CODE_TYPE_APCH	P			n		Obstacle clearance information is with detailed SIAP data that is NOT part of NASR.
OCA_OCH	CODE_REF_OCH	O			n		Obstacle clearance information is with detailed SIAP data that is NOT part of NASR.

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
OCA_OCH	TXT_RMK	O			n	Obstacle clearance information is with detailed SIAP data that is NOT part of NASR.	
OCA_OCH	UOM_DIST_VER	O			n	Obstacle clearance information is with detailed SIAP data that is NOT part of NASR.	
OCA_OCH	VAL_OCA	O			n	Obstacle clearance information is with detailed SIAP data that is NOT part of NASR.	
OCA_OCH	VAL_OCH	O			n	Obstacle clearance information is with detailed SIAP data that is NOT part of NASR.	
PROCEDURE_LEG	NO_SEQ	P			n	PROCEDURE_LEG are details of SID, STAR, IAP that are NOT found in NASR.	
PROCEDURE_LEG	CODE_DESCR_DIST_V ER	O			n	PROCEDURE_LEG are details of SID, STAR, IAP that are NOT found in NASR.	
PROCEDURE_LEG	CODE_DIR_TURN	O			n	PROCEDURE_LEG are details of SID, STAR, IAP that are NOT found in NASR.	

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
PROCEDURE_LEG	CODE_DIST_VER_LOWER	O			n	PROCEDURE_LEG are details of SID, STAR, IAP that are NOT found in NASR.	
PROCEDURE_LEG	CODE_DIST_VER_UPPER	O			n	PROCEDURE_LEG are details of SID, STAR, IAP that are NOT found in NASR.	
PROCEDURE_LEG	CODE_PHASE	O			n	PROCEDURE_LEG are details of SID, STAR, IAP that are NOT found in NASR.	
PROCEDURE_LEG	CODE_REP_ATC	O			n	PROCEDURE_LEG are details of SID, STAR, IAP that are NOT found in NASR.	
PROCEDURE_LEG	CODE_ROLE_FIX	O			n	PROCEDURE_LEG are details of SID, STAR, IAP that are NOT found in NASR.	
PROCEDURE_LEG	CODE_SPEED_REF	O			n	PROCEDURE_LEG are details of SID, STAR, IAP that are NOT found in NASR.	
PROCEDURE_LEG	CODE_TURN_VALID	O			n	PROCEDURE_LEG are details of SID, STAR, IAP that are NOT found in NASR.	
PROCEDURE_LEG	CODE_TYPE_COURSE	O			n	PROCEDURE_LEG are details of SID, STAR, IAP that are NOT found in NASR.	



AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
PROCEDURE_LEG	TXT_RMK	O			n	PROCEDURE_LEG are details of SID, STAR, IAP that are NOT found in NASR.	
PROCEDURE_LEG	UOM_DIST_HORZ	O			n	PROCEDURE_LEG are details of SID, STAR, IAP that are NOT found in NASR.	
PROCEDURE_LEG	UOM_DIST_VER_LOWER	O			n	PROCEDURE_LEG are details of SID, STAR, IAP that are NOT found in NASR.	
PROCEDURE_LEG	UOM_DIST_VER_UPPER	O			n	PROCEDURE_LEG are details of SID, STAR, IAP that are NOT found in NASR.	
PROCEDURE_LEG	UOM_DUR	O			n	PROCEDURE_LEG are details of SID, STAR, IAP that are NOT found in NASR.	
PROCEDURE_LEG	UOM_SPEED	O			n	PROCEDURE_LEG are details of SID, STAR, IAP that are NOT found in NASR.	
PROCEDURE_LEG	VAL_BANK_ANGLE	O			n	PROCEDURE_LEG are details of SID, STAR, IAP that are NOT found in NASR.	
PROCEDURE_LEG	VAL_COURSE	O			n	PROCEDURE_LEG are details of SID, STAR, IAP that are NOT found in NASR.	

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
PROCEDURE_LEG	VAL_DIST	O			n	PROCEDURE_LEG are details of SID, STAR, IAP that are NOT found in NASR.	
PROCEDURE_LEG	VAL_DIST_VER_LOWER	O			n	PROCEDURE_LEG are details of SID, STAR, IAP that are NOT found in NASR.	
PROCEDURE_LEG	VAL_DIST_VER_UPPER	O			n	PROCEDURE_LEG are details of SID, STAR, IAP that are NOT found in NASR.	
PROCEDURE_LEG	VAL_DUR	O			n	PROCEDURE_LEG are details of SID, STAR, IAP that are NOT found in NASR.	
PROCEDURE_LEG	VAL_RHO	O			n	PROCEDURE_LEG are details of SID, STAR, IAP that are NOT found in NASR.	
PROCEDURE_LEG	VAL_SPEED_LIMIT	O			n	PROCEDURE_LEG are details of SID, STAR, IAP that are NOT found in NASR.	
PROCEDURE_LEG	VAL_THETA	O			n	PROCEDURE_LEG are details of SID, STAR, IAP that are NOT found in NASR.	
PROCEDURE_LEG	VAL_VER_ANGLE	O			n	PROCEDURE_LEG are details of SID, STAR, IAP that are NOT found in NASR.	

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
PROCEDURE_LEG	CODE_TYPE	M			n	PROCEDURE_LEG are details of SID, STAR, IAP that are NOT found in NASR.	
RWY_DIRECTION_STAR	DT_WEF	P		none	y	Map system date (yyyy-mm-dd hh:mm format)	
RWY_DIRECTION_STAR	TXT_RMK	O			y		
RWY_DIRECTION_STAR	DT_TIL	M		DELETE_DATE	y	If null use system date. In either case, convert from date format to yyyy-mm-dd hh:mm	
RWY_DIRECTION_STAR_M	z-no attributes				y		
SID	DT_WEF	P		none	y	Map system date (yyyy-mm-dd hh:mm format)	
SID	CODE_RNP	O			n		
SID	TXT_DESCR	O	SID_STAR_REMARK	REMARK	y	Completeness of descriptive remark uncertain.	
SID	TXT_DESCR_COM_FAI L	O			n		
SID	TXT_RMK	O	SID_STAR_REMARK	REMARK	y	Completeness of descriptive remark uncertain.	
SID	CODE_TYPE_RTE	M			n		

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
SID	DT_TIL	M		DELETE_DATE	y	If null use system date. In either case, convert from date format to yyyy-mm-dd hh:mm	
SID_M	CODE_CAT_ACFT	P			n		
SID_M	CODE_TRANS_ID	P			n		
SID_M	TXT_DESIG	P	SID_STAR	SID_STAR_NAME	y		
SID_USAGE	DT_WEF	P		none	y	Map system date (yyyy-mm-dd hh:mm format)	
SID_USAGE	TXT_RMK	O	SID_STAR_REMARK	REMARK	y	Completeness of descriptive remark uncertain.	
SID_USAGE	TXT_RMK_WORK_HR	O			n		
SID_USAGE	CODE_WORK_HR	M			n		
SID_USAGE	DT_TIL	M		DELETE_DATE	y	If null use system date. In either case, convert from date format to yyyy-mm-dd hh:mm	
SID_USAGE_M	CODE_RTE_AVBL	P			n		
SID_USAGE_TIMESHEET	CODE_DAY	P			n		
SID_USAGE_TIMESHEET	CODE_EVENT_WEF	P			n		
SID_USAGE_TIMESHEET	DATE_VALID_WEF	P			n		

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
SID_USAGE_TIMESHEET	TIME_WEF	P			n		
SID_USAGE_TIMESHEET	CODE_COMB_TIL	O			n		
SID_USAGE_TIMESHEET	CODE_COMB_WEF	O			n		
SID_USAGE_TIMESHEET	CODE_DAY_TIL	O			n		
SID_USAGE_TIMESHEET	CODE_EVENT_TIL	O			n		
SID_USAGE_TIMESHEET	TIME_REL_EVENT_TIL	O			n		
SID_USAGE_TIMESHEET	TIME_REL_EVENT_WEF	O			n		
SID_USAGE_TIMESHEET	TIME_TIL	O			n		
SID_USAGE_TIMESHEET	CODE_TIME_REF	M			n		
SID_USAGE_TIMESHEET	DATE_VALID_TIL	M			n		
SNOWTAM	DT_OBS	P			n		
SNOWTAM	DT_NEXT_OBS	O			n		
SNOWTAM	TXT_DESCR	O			n		
SNOWTAM	TXT_RMK	O			n		
SNOWTAM	CODE_CORR	M			n		
SNOWTAM	NO_SEQ	M			n		
SNOWTAM_TO_APRON	CODE_SNOW	M			n		
SNOWTAM_TO_RWY	CODE_DEPTH	O			n		

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
SNOWTAM_TO_RWY	CODE_DEVICE	O			n		
SNOWTAM_TO_RWY	CODE_FRICTION	O			n		
SNOWTAM_TO_RWY	CODE_OFFSET	O			n		
SNOWTAM_TO_RWY	TXT_LGT	O			n		
SNOWTAM_TO_RWY	TXT_RMK	O			n		
SNOWTAM_TO_RWY	TXT_SNOWBANKS	O			n		
SNOWTAM_TO_RWY	TXT_WIP	O			n		
SNOWTAM_TO_RWY	TXT_WIP_END	O			n		
SNOWTAM_TO_RWY	VAL_LEN	O			n		
SNOWTAM_TO_RWY	VAL_WID	O			n		
SNOWTAM_TO_RWY	CODE_SNOW	M			n		
SNOWTAM_TO_TWY	TXT_RMK	O			n		
SNOWTAM_TO_TWY	TXT_SNOWBANKS	O			n		
SNOWTAM_TO_TWY	CODE_SNOW	M			n		
SPEC_NAV_STATION	DT_WEF	P		none	n	Map system date (yyyy-mm-dd hh:mm format)	
SPEC_NAV_STATION	CODE_EM	O	none	none	y	Could create code in accordance with 1979 ITU World Administrative Radio Conference.	

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
SPEC_NAV_STATION	TXT_RMK	O			n	LORAN related information NOT part of NASR.	
SPEC_NAV_STATION	TXT_RMK_WORK_HR	O			n	LORAN related information NOT part of NASR.	
SPEC_NAV_STATION	TXT_VER_DATUM	O			n	LORAN related information NOT part of NASR.	
SPEC_NAV_STATION	UOM_DIST_VER	O			n	LORAN related information NOT part of NASR.	
SPEC_NAV_STATION	UOM_FREQ	O			n	LORAN related information NOT part of NASR.	
SPEC_NAV_STATION	UOM_GEO_ACCURACY	O			n	LORAN related information NOT part of NASR.	
SPEC_NAV_STATION	VAL_CRC	O			n	LORAN related information NOT part of NASR.	
SPEC_NAV_STATION	VAL_ELEV	O			n	LORAN related information NOT part of NASR.	
SPEC_NAV_STATION	VAL_ELEV_ACCURACY	O			n	LORAN related information NOT part of NASR.	
SPEC_NAV_STATION	VAL_FREQ	O			n	LORAN related information NOT part of NASR.	
SPEC_NAV_STATION	VAL_GEO_ACCURACY	O			n	LORAN related information NOT part of NASR.	

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
SPEC_NAV_STATION	VAL_GEOID_UNDULATION	O			n	LORAN related information NOT part of NASR.	
SPEC_NAV_STATION	CODE_DATUM	M			n	LORAN related information NOT part of NASR.	
SPEC_NAV_STATION	CODE_TYPE_SER	M			n	LORAN related information NOT part of NASR.	
SPEC_NAV_STATION	CODE_WORK_HR	M			n	LORAN related information NOT part of NASR.	
SPEC_NAV_STATION	DT_TIL	M		DELETE_DATE	n	If null use system date. In either case, convert from date format to yyyy-mm-dd hh:mm	
SPEC_NAV_STATION	GEO_LAT	M			n	LORAN related information NOT part of NASR.	
SPEC_NAV_STATION	GEO_LONG	M			n	LORAN related information NOT part of NASR.	
SPEC_NAV_STATION_M	TXT_NAME	P			n	LORAN related information NOT part of NASR.	
SPEC_NAV_STATION_TIMSH	CODE_DAY	P			n	LORAN related information NOT part of NASR.	
SPEC_NAV_STATION_TIMSH	CODE_EVENT_WEF	P			n	LORAN related information NOT part of NASR.	



AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
SPEC_NAV_STATION_T MSH	DATE_VALID_WEF	P			n	LORAN related information NOT part of NASR.	
SPEC_NAV_STATION_T MSH	TIME_WEF	P			n	LORAN related information NOT part of NASR.	
SPEC_NAV_STATION_T MSH	CODE_COMB_TIL	O			n	LORAN related information NOT part of NASR.	
SPEC_NAV_STATION_T MSH	CODE_COMB_WEF	O			n	LORAN related information NOT part of NASR.	
SPEC_NAV_STATION_T MSH	CODE_DAY_TIL	O			n	LORAN related information NOT part of NASR.	
SPEC_NAV_STATION_T MSH	CODE_EVENT_TIL	O			n	LORAN related information NOT part of NASR.	
SPEC_NAV_STATION_T MSH	TIME_REL_EVENT_TIL	O			n	LORAN related information NOT part of NASR.	
SPEC_NAV_STATION_T MSH	TIME_REL_EVENT_WEF	O			n	LORAN related information NOT part of NASR.	
SPEC_NAV_STATION_T MSH	TIME_TIL	O			n	LORAN related information NOT part of NASR.	
SPEC_NAV_STATION_T MSH	CODE_TIME_REF	M			n	LORAN related information NOT part of NASR.	
SPEC_NAV_STATION_T MSH	DATE_VALID_TIL	M			n	LORAN related information NOT part of NASR.	

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
SPEC_NAV_SYS	DT_WEF	P		none	n	Map system date (yyyy-mm-dd hh:mm format)	
SPEC_NAV_SYS	TXT_RMK	O			n	LORAN related information NOT part of NASR.	
SPEC_NAV_SYS	DT_TIL	M		DELETE_DATE	n	If null use system date. In either case, convert from date format to yyyy-mm-dd hh:mm	
SPEC_NAV_SYS	TXT_NAME	M			n	LORAN related information NOT part of NASR.	
SPEC_NAV_SYS_M	CODE_ID	P			n	LORAN related information NOT part of NASR.	
SPEC_NAV_SYS_M	CODE_TYPE	P			n	LORAN related information NOT part of NASR.	
STAR	DT_WEF	P		none	y	Map system date (yyyy-mm-dd hh:mm format)	
STAR	CODE_RNP	O			n		
STAR	TXT_DESCR	O	SID_STAR_REMARK	REMARK	y	Completeness of descriptive remark uncertain.	
STAR	TXT_DESCR_COM_FAI L	O			n		
STAR	TXT_RMK	O	SID_STAR_REMARK	REMARK	y	Completeness of descriptive remark uncertain.	

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
STAR	CODE_TYPE_RTE	M			n		
STAR	DT_TIL	M		DELETE_DATE	y		If null use system date. In either case, convert from date format to yyyy-mm-dd hh:mm
STAR_M	CODE_CAT_ACFT	P			n		
STAR_M	CODE_TRANS_ID	P			n		
STAR_M	TXT_DESIG	P	SID_STAR	SID_STAR_NAME	y		
STAR_USAGE	DT_WEF	P		none	y		Map system date (yyyy-mm-dd hh:mm format)
STAR_USAGE	TXT_RMK	O	SID_STAR_REMARK	REMARK	y		Completeness of descriptive remark uncertain.
STAR_USAGE	TXT_RMK_WORK_HR	O			n		
STAR_USAGE	CODE_WORK_HR	M			n		
STAR_USAGE	DT_TIL	M		DELETE_DATE	y		If null use system date. In either case, convert from date format to yyyy-mm-dd hh:mm
STAR_USAGE_M	CODE_RTE_AVBL	P			n		
STAR_USAGE_TIMESHEET	CODE_DAY	P			n		

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
STAR_USAGE_TIMESHEET	CODE_EVENT_WEF	P			n		
STAR_USAGE_TIMESHEET	DATE_VALID_WEF	P			n		
STAR_USAGE_TIMESHEET	TIME_WEF	P			n		
STAR_USAGE_TIMESHEET	CODE_COMB_TIL	O			n		
STAR_USAGE_TIMESHEET	CODE_COMB_WEF	O			n		
STAR_USAGE_TIMESHEET	CODE_DAY_TIL	O			n		
STAR_USAGE_TIMESHEET	CODE_EVENT_TIL	O			n		
STAR_USAGE_TIMESHEET	TIME_REL_EVENT_TIL	O			n		
STAR_USAGE_TIMESHEET	TIME_REL_EVENT_WEF	O			n		
STAR_USAGE_TIMESHEET	TIME_TIL	O			n		
STAR_USAGE_TIMESHEET	CODE_TIME_REF	M			n		

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
STAR_USAGE_TIMESHEET	DATE_VALID_TIL	M			n		
TACAN	DT_WEF	P		none	y	Map system date (yyyy-mm-dd hh:mm format)	
TACAN	CODE_EM	O	none	none	y	Could create code in accordance with 1979 ITU World Administrative Radio Conference.	
TACAN	DATE_MAG_VAR	O	NAVIGATION_USE	MAG_VARN, MAG_VARN_HEMIS	y	Compute from NASR components.	
TACAN	TXT_NAME	O	NAVIGATION_AID	NAV_ID	y	Direct	
TACAN	TXT_RMK	O	NAVAID_REMARK	REMARK	y	Direct	
TACAN	TXT_RMK_WORK_HR	O			n		
TACAN	TXT_VER_DATUM	O	none	none	y	Default "WGS 84".	
TACAN	UOM_DIST_VER	O	none	none	y	Set to NASR default of "FT".	
TACAN	UOM_GEO_ACCURACY	O	TACAN_DME_TYPE	LAT_LONG_SOURCE_CODE	y	There may be required information in the code definition (TBD).	
TACAN	VAL_CRC	O	none	none	y	Computed in accordance with AIXM specification.	
TACAN	VAL_ELEV	O	NAVIGATION_AID	ELEV	y	Direct	

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
TACAN	VAL_ELEV_ACCURACY	O	NAVIGATION_USE	SURVEY_ACCURACY_CODE	y	If there is a FIX associated with the component, there may be required information in the code definition (TBD).	
TACAN	VAL_GEO_ACCURACY	O	NAVIGATION_USE	SURVEY_ACCURACY_CODE	y	If there is a FIX associated with the component, there may be required information in the code definition (TBD).	
TACAN	VAL_GEOID_UNDULATION	O	NAVIGATION_USE	SURVEY_ACCURACY_CODE	y	If there is a FIX associated with the component, there may be required information in the code definition (TBD).	
TACAN	VAL_MAG_VAR	O	NAVIGATION_USE	MAG_VARN	y	Direct	
TACAN	CODE_CHANNEL	M	TACAN_DME_TYPE	CHAN	y	Direct	
TACAN	CODE_DATUM	M	none	none	y	Set default for NASR = "WGE"	
TACAN	CODE_WORK_HR	M			n		
TACAN	DT_TIL	M		DELETE_DATE	y	If null use system date. In either case, convert from date format to yyyy-mm-dd hh:mm	
TACAN_LIMITATION	DT_WEF	P		none	y	Map system date (yyyy-mm-dd hh:mm format)	

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
TACAN_LIMITATION	CODE_DIST_VER_UPPER	O			n		
TACAN_LIMITATION	TXT_RMK	O			n		
TACAN_LIMITATION	UOM_DIST_VER_UPPER	O			n		
TACAN_LIMITATION	VAL_ANGLE_SCALLOP	O			n		
TACAN_LIMITATION	VAL_DIST_OUTER	O			n		
TACAN_LIMITATION	VAL_DIST_VER_UPPER	O			n		
TACAN_LIMITATION	CODE_DIST_VER_LOWER	M			n		
TACAN_LIMITATION	DT_TIL	M		DELETE_DATE	y		If null use system date. In either case, convert from date format to yyyy-mm-dd hh:mm
TACAN_LIMITATION	UOM_DIST_HORZ	M			n		
TACAN_LIMITATION	UOM_DIST_VER_LOWER	M			n		
TACAN_LIMITATION_M	CODE_TYPE	P			n		
TACAN_LIMITATION_M	VAL_ANGLE_FM	P			n		
TACAN_LIMITATION_M	VAL_ANGLE_TO	P			n		

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
TACAN_LIMITATION_M	VAL_DIST_INNER	P			n		
TACAN_LIMITATION_M	VAL_DIST_VER_LOWER	P			n		
TACAN_M	CODE_ID	P	NAVIGATION_AID	NAV_ID	y	Direct	
TACAN_M	GEO_LAT	P	TACAN_DME_TYPE	LAT_DEG, LAT_MIN, LAT_SEC, LAT_HEMIS	y	Compute from NASR components.	
TACAN_M	GEO_LONG	P	TACAN_DME_TYPE	LONG_DEG, LONG_MIN, LONG_SEC, LONG_HEMIS	y	Compute from NASR components.	
TACAN_TIMESHEET	CODE_DAY	P	NAVIGATION_AID	OPER_HOURS	y	Computed from NAVIGATION_AID.OPER_HOURS. Default CODE_DAY_TIL = "MON" for continuous ops.	
TACAN_TIMESHEET	CODE_EVENT_WEF	P			n		Assuming NASR does not use event (sunrise, sunset).
TACAN_TIMESHEET	CODE_TYPE	P	NAVIGATION_AID	OPER_HOURS	y	If OPER_HOURS is not 24hrs the CODE_TYPE = "WORK" [working hour] else CODE_TYPE = "UNMO" [unmonitored].	



AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
TACAN_TIMESHEET	DATE_VALID_WEF	P	NAVIGATION_AID	none	y	Map system date (yyyy-mm-dd hh:mm format)	
TACAN_TIMESHEET	TIME_WEF	P	NAVIGATION_AID	OPER_HOURS	y	Computed from NAVIGATION_AID.OPER_HOURS.	
TACAN_TIMESHEET	CODE_COMB_TIL	O			n		Assuming NASR does not use event (sunrise, sunset).
TACAN_TIMESHEET	CODE_COMB_WEF	O			n		Assuming NASR does not use event (sunrise, sunset).
TACAN_TIMESHEET	CODE_DAY_TIL	O	NAVIGATION_AID	OPER_HOURS	y	Computed from NAVIGATION_AID.OPER_HOURS. Default CODE_DAY_TIL = "SUN" for continuous ops.	
TACAN_TIMESHEET	CODE_EVENT_TIL	O			n		Assuming NASR does not use event (sunrise, sunset).
TACAN_TIMESHEET	TIME_REL_EVENT_TIL	O			n		Assuming NASR does not use event (sunrise, sunset).
TACAN_TIMESHEET	TIME_REL_EVENT_WEF	O			n		Assuming NASR does not use event (sunrise, sunset).

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
TACAN_TIMESHEET	TIME_TIL	O	NAVIGATION_AID	OPER_HOURS	y	Computed from NAVIGATION_AID.OPER_HOURS.	
TACAN_TIMESHEET	CODE_TIME_REF	M	none	none	y	Assume all times are converted to UTC and CODE_TIME_REF = "UTC".	
TACAN_TIMESHEET	DATE_VALID_TIL	M	NAVIGATION_AID	DELETE_DATE	y	If null use system date. In either case, convert from date format to yyyy-mm-dd hh:mm	
VOR	DT_WEF	P		none	y	Map system date (yyyy-mm-dd hh:mm format)	
VOR	CODE_EM	O	none	none	y	Could create code in accordance with 1979 ITU World Administrative Radio Conference.	
VOR	DATE_MAG_VAR	O	NAVIAGATION_USE	MAG_VARN_YEAR	y		
VOR	TXT_NAME	O	none	none	y	Option to default it to NAVIGATION_AID.NAV_ID.	
VOR	TXT_RMK	O	NAVAID_REMARK	REMARK	y		
VOR	TXT_RMK_WORK_HR	O	none	none	n		
VOR	TXT_VER_DATUM	O	none	none	y	Default = "WGS 84"	
VOR	UOM_DIST_VER	O	none	none	n		

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
VOR	UOM_GEO_ACCURACY	O	NAVIGATION_AID	SURVEY_ACCURACY_CODE	y	May be able to conver code.	
VOR	VAL_CRC	O	NAVIGATION_AID	none	y	Calculated as per AIXM specification using derived GEO_LAT and GEO_LONG.	
VOR	VAL_ELEV	O	NAVIGATION_AID	ELV	y	direct	
VOR	VAL_ELEV_ACCURACY	O	NAVIGATION_AID	SURVEY_ACCURACY_CODE	y	May be able to conver code.	
VOR	VAL_GEO_ACCURACY	O	NAVIGATION_AID	SURVEY_ACCURACY_CODE	y	May be able to conver code.	
VOR	VAL_GEOID_UNDULATION	O	none	none	n	[determined by CODE_DATUM?]	
VOR	VAL_MAG_VAR	O	NAVIGATION_USE	MAG_VARN, MAG_VARN_HEMIS	y	Compute from two NASR components	
VOR	CODE_DATUM	M	none	none	y	Not in NASR. Set to "WGE" [WGS-84 (GRS-80)] as default.	
VOR	CODE_TYPE	M	NAVIAGATION_USE	VOR_TYPE_INDICATOR	y		
VOR	CODE_TYPE_NORTH	M	none	none	y	Default to "MAG".	
VOR	CODE_WORK_HR	M	NAVIGATION_AID	none	y	Default CODE_WORK_HR = "TIMSH" [as specified in the related timesheet].	

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
VOR	DT_TIL	M		DELETE_DATE	y	If null use system date. In either case, convert from date format to yyyy-mm-dd hh:mm	
VOR	UOM_FREQ	M	none	none	y	Set default = (TBD) for NASR	
VOR	VAL_FREQ	M	NAVIGATION_AID	FREQ	y	direct	
VOR_LIMITATION	DT_WEF	P		none	y	Map system date (yyyy-mm-dd hh:mm format)	
VOR_LIMITATION	CODE_DIST_VER_UPPER	O			n		
VOR_LIMITATION	TXT_RMK	O	none	none	n		
VOR_LIMITATION	UOM_DIST_VER_UPPER	O	NAVIGATION_AID	SURVEY_ACCURACY_CODE	y	May be able to conver code.	
VOR_LIMITATION	VAL_ANGLE_SCALLOP	O	none	none	n		
VOR_LIMITATION	VAL_DIST_OUTER	O	none	none	n		
VOR_LIMITATION	VAL_DIST_VER_UPPER	O	none	none	n		
VOR_LIMITATION	CODE_DIST_VER_LOWER	M			n		

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
VOR_LIMITATION	DT_TIL	M		DELETE_DATE	y	If null use system date. In either case, convert from date format to yyyy-mm-dd hh:mm	
VOR_LIMITATION	UOM_DIST_HORZ	M	none	none	n		
VOR_LIMITATION	UOM_DIST_VER_LOWER	M	none	none	n		
VOR_LIMITATION_M	CODE_TYPE	P			n		
VOR_LIMITATION_M	VAL_ANGLE_FM	P	none	none	n		
VOR_LIMITATION_M	VAL_ANGLE_TO	P	none	none	n		
VOR_LIMITATION_M	VAL_DIST_INNER	P	none	none	n		
VOR_LIMITATION_M	VAL_DIST_VER_LOWER	P	none	none	n		
VOR_M	CODE_ID	P	NAVIGATION_AID	NAV_ID	y	Direct	
VOR_M	GEO_LAT	P	NAVIGATION_AID	LAT_DEG, LAT_MIN, LAT_SEC, LAT_HEMIS	y	GEO_LAT computed from four NASR attributes.	
VOR_M	GEO_LONG	P	NAVIGATION_AID	LONG_DEG, LONG_MIN, LONG_SEC, LONG_HEMIS	y	GEO_LONG computed from four NASR attributes.	

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
VOR_TIMESHEET	CODE_DAY	P	NAVIGATION_AID	OPER_HOURS	y	Computed from NAVIGATION_AID.OPER_HOURS. Default CODE_DAY_TIL = "MON" for continuous ops.	
VOR_TIMESHEET	CODE_EVENT_WEF	P			n		Assuming NASR does not use event (sunrise, sunset).
VOR_TIMESHEET	CODE_TYPE	P	NAVIGATION_AID	OPER_HOURS	y	If OPER_HOURS is not 24hrs the CODE_TYPE = "WORK" [working hourse] else CODE_TYPE = "UNMO" [unmonitored].	
VOR_TIMESHEET	DATE_VALID_WEF	P	NAVIGATION_AID	none	y	Map system date (yyyy-mm-dd hh:mm format)	
VOR_TIMESHEET	TIME_WEF	P	NAVIGATION_AID	OPER_HOURS	y	Computed from NAVIGATION_AID.OPER_HOURS.	
VOR_TIMESHEET	CODE_COMB_TIL	O			n		Assuming NASR does not use event (sunrise, sunset).
VOR_TIMESHEET	CODE_COMB_WEF	O			n		Assuming NASR does not use event (sunrise, sunset).

AIXM Entity	AIXM Attribute	Attribute Type	NASR Entity	NASR Attribute	Mapping	NASR to AIXM Mapping	Comments
VOR_TIMESHEET	CODE_DAY_TIL	O	NAVIGATION_AID	OPER_HOURS	y	Computed from NAVIGATION_AID.OPER_HOURS. Default CODE_DAY_TIL = "SUN" for continuous ops.	
VOR_TIMESHEET	CODE_EVENT_TIL	O			n		Assuming NASR does not use event (sunrise, sunset).
VOR_TIMESHEET	TIME_REL_EVENT_TIL	O			n		Assuming NASR does not use event (sunrise, sunset).
VOR_TIMESHEET	TIME_REL_EVENT_WEEK	O			n		Assuming NASR does not use event (sunrise, sunset).
VOR_TIMESHEET	TIME_TIL	O	NAVIGATION_AID	OPER_HOURS	y	Computed from NAVIGATION_AID.OPER_HOURS.	
VOR_TIMESHEET	CODE_TIME_REF	M	none	none	y	Assume all times are converted to UTC and CODE_TIME_REF = "UTC".	
VOR_TIMESHEET	DATE_VALID_TIL	M	NAVIGATION_AID	DELETE_DATE	y	If null use system date. In either case, convert from date format to yyyy-mm-dd hh:mm	

