OST/MDL/SMB: July 19, 2005

WMO Headings for Gridded MOS Products

WMO headings have the format of $T_1T_2A_1A_2$ii CCCC

1. The CCCC for all gridded MOS product WMO headings is **KWBQ**.

2. The T_1 for all gridded MOS products based on the global model is **L**.

3. The T_2 represents the weather element type designator. The following values are used for a T_1 = **L**. When feasible, these values match those used for the NDFD WMO headers.
Values for T_2 are:
A = sky cover
B = wind direction at sensor height (nominally, 10 m)
C = wind speed at sensor height (nominally, 10 m)
D = probability of precipitation (12 h)
E = temperature at sensor height (nominally, 2 m)
F = dewpoint temperature at sensor height (nominally, 2 m)
G = daytime maximum temperature at sensor height (nominally, 2 m)
H = nighttime minimum temperature at sensor height (nominally, 2 m)
I = quantitative precipitation (6 h)
J = thunderstorms (6 h)
K = severe weather (6 h)
L = precipitation type
M = precipitation characteristics
N = precipitation occurrence
O = obstruction to vision
P = visibility
Q = ceiling height
R = relative humidity
S = snowfall amount (24 h)
T = apparent temperature
U = probability of precipitation (6 h)
V = quantitative precipitation (12 h)
W = wind gusts
X = thunderstorms (12 h)
Y = thunderstorms (3 h)
Z = unassigned

4. The A_1 designates the geographical area. The following designators follow the conventions established in the NDFD WMO headers.
A = Puerto Rico
R = Alaska
S = Hawaii
T = Guam
U = CONUS

5. The A_2 and ii follow the convention established in the NDFD. These three characters together represent the day and hour (UTC) for which the product is valid. The following convention for A_2 and ii is used for the gridded MOS products:

A = Day 0; ii = hour (0-23)
B = Day 1; ii = hour (0-23)
C = Day 2; ii = hour (0-23)
D = Day 3; ii = hour (0-23)
E = Day 4; ii = hour (0-23)
F = Day 5; ii = hour (0-23)
G = Day 6; ii = hour (0-23)
H = Day 7; ii = hour (0-23)
I = Day 8; ii = hour (0-23)
J = Day 9; ii = hour (0-23)

Table 1. WMO headers for gridded MOS products. The headers shown are for the CONUS only. The complete headers shown in Tables B.2 are given for those elements to be transmitted in the initial releases of the gridded MOS products. Information for the other headers will be added, as available and needed.

Element	**Header**	**No. of grids per cycle**	**First/Last Proj./Time Increment (hr)**	**Bytes per grid/cycle**
Sky Cover	LAUA$_2$ii	63	6/192/3	100K/6.3M
Wind Direction	LBUA$_2$ii	63	6/192/3	225K/14.2M
Wind Speed	LCUA$_2$ii	63	6/192/3	125K/7.9M
PoP (12h)	LDUA$_2$ii	30	18/192/6	100K/3.0M
Temperature	LEUA$_2$ii	63	6/192/3	250K/15.8M
Dew Point	LFUA$_2$ii	63	6/192/3	250K/15.8M
Daytime Max	LGUA$_2$ii	8(00Z) 7(12Z)	24/192/24 36/180/24	250K/2.0M 250K/1.7M
Nighttime Min	LHUA$_2$ii	7(00Z) 8(12Z)	36/180/24 24/192/24	250K/1.7M 250K/2.0M
Quantitative Precip. (6h)	LIUA$_2$ii	25	12/156/6	100K/2.5M
Tstm. Prob. (6h)	LJUA$_2$ii	31	12/192/6	100K/3.1M
Svr. Wx. Prob. (6h)	LKUA$_2$ii	TBD	TBD	100K/TBD
Precip. Type	LLUA$_2$ii	63	6/192/3	100K/6.3M
Precip. Character.	LMUA$_2$ii	TBD	TBD	100K/TBD
Precip. Occurrence	LNUA$_2$ii	TBD	TBD	100K/TBD
Obs. Vision	LOUA$_2$ii	TBD	TBD	100K/TBD
Visibility	LPUA$_2$ii	TBD	TBD	100K/TBD
Ceiling Height	LQUA$_2$ii	TBD	TBD	100K/TBD
Relative Humidity	LRUA$_2$ii	63	6/192/3	100K/6.3M
Snowfall Amount (24h)	LSUA$_2$ii	9	36/132/12	100K/0.9M
Apparent Temp.	LTUA$_2$ii	TBD	TBD	250K/TBD
PoP (6h)	LUUA$_2$ii	31	12/192/6	100K/3.1M
Quantitative Precip. (12h)	LVUA$_2$ii	24	18/156/6	100K/2.4M
Wind Gusts	LWUA$_2$ii	63	6/192/3	150K/9.4M
Tstm. Prob. (12h)	LXUA$_2$ii	30	18/192/6	100K/3.0M
Tstm. Prob. (3h)	LYUA$_2$ii	26	9/84/3	100K/2.6M

Table B.2. WMO headers for gridded MOS products expected to be transmitted initially on the SBN.

Element	Header Category	Product Headers
Sky Cover	$LAUA_2$ii	LAUA18 LAUA21 LAUB00 LAUB03 LAUB06 LAUB09 LAUB12 LAUB15 LAUB18 LAUB21 LAUC00 LAUC03 LAUC06 LAUC09 LAUC12 LAUC15 LAUC18 LAUC21 LAUD00 LAUD03 LAUD06 LAUD09 LAUD12 LAUD15 LAUD18 LAUD21 LAUE00 LAUE03 LAUE06 LAUE09 LAUE12 LAUE15 LAUE18 LAUE21 LAUF00 LAUF03 LAUF06 LAUF09 LAUF12 LAUF15 LAUF18 LAUF21 LAUG00 LAUG03 LAUG06 LAUG09 LAUG12 LAUG15 LAUG18 LAUG21 LAUH00 LAUH03 LAUH06 LAUH09 LAUH12 LAUH15 LAUH18 LAUH21 LAUI00 LAUI03 LAUI06 LAUI09 LAUI12 LAUI15 LAUI18 LAUI21 LAUJ00
Wind Direction	$LBUA_2$ii	LBUA18 LBUA21 LBUB00 LBUB03 LBUB06 LBUB09 LBUB12 LBUB15 LBUB18 LBUB21 LBUC00 LBUC03 LBUC06 LBUC09 LBUC12 LBUC15 LBUC18 LBUC21 LBUD00 LBUD03 LBUD06 LBUD09 LBUD12 LBUD15 LBUD18 LBUD21 LBUE00 LBUE03 LBUE06 LBUE09 LBUE12 LBUE15 LBUE18 LBUE21 LBUF00 LBUF03 LBUF06 LBUF09 LBUF12 LBUF15 LBUF18 LBUF21 LBUG00 LBUG03 LBUG06 LBUG09 LBUG12 LBUG15 LBUG18 LBUG21 LBUH00 LBUH03 LBUH06 LBUH09 LBUH12 LBUH15 LBUH18 LBUH21 LBUI00 LBUI03 LBUI06 LBUI09 LBUI12 LBUI15 LBUI18 LBUI21 LBUJ00
Wind Speed	$LCUA_2$ii	LCUA18 LCUA21 LCUB00 LCUB03 LCUB06 LCUB09 LCUB12 LCUB15 LCUB18 LCUB21 LCUC00 LCUC03 LCUC06 LCUC09 LCUC12 LCUC15 LCUC18 LCUC21 LCUD00 LCUD03 LCUD06 LCUD09 LCUD12 LCUD15 LCUD18 LCUD21 LCUE00 LCUE03 LCUE06 LCUE09 LCUE12LCUE15 LCUE18 LCUE21 LCUF00 LCUF03 LCUF06 LCUF09 LCUF12 LCUF15 LCUF18 LCUF21

		LCUG00 LCUG03 LCUG06 LCUG09 LCUG12 LCUG15 LCUG18 LCUG21 LCUH00 LCUH03 LCUH06 LCUH09 LCUH12 LCUH15 LCUH18 LCUH21 LCUI00 LCUI03 LCUI06 LCUI09 LCUI12 LCUI15 LCUI18 LCUI21 LCUJ00
PoP (12 h)	LDUZ98	LDUB06 LDUB12 LDUB18 LDUC00 LDUC06 LDUC12 LDUC18 LDUD00 LDUD06 LDUD12 LDUD18 LDUE00 LDUE06 LDUE12 LDUE18 LDUF00 LDUF06 LDUF12 LDUF18 LDUG00 LDUG06 LDUG12 LDUG18 LDUH00 LDUH06 LDUH12 LDUH18 LDUI00 LDUI06 LDUI12 LDUI18 LDUJ00
Temperature	LEUZ98	LEUA18 LEUA21 LEUB00 LEUB03 LEUB06 LEUB09 LEUB12 LEUB15 LEUB18 LEUB21 LEUC00 LEUC03 LEUC06 LEUC09 LEUC12 LEUC15 LEUC18 LEUC21 LEUD00 LEUD03 LEUD06 LEUD09 LEUD12 LEUD15 LEUD18 LEUD21 LEUE00 LEUE03 LEUE06 LEUE09 LEUE12 LEUE15 LEUE18 LEUE21 LEUF00 LEUF03 LEUF06 LEUF09 LEUF12 LEUF15 LEUF18 LEUF21 LEUG00 LEUG03 LEUG06 LEUG09 LEUG12 LEUG15 LEUG18 LEUG21 LEUH00 LEUH03 LEUH06 LEUH09 LEUH12 LEUH15 LEUH18 LEUH21 LEUI00 LEUI03 LEUI06 LEUI09 LEUI12 LEUI15 LEUI18 LEUI21 LEUJ00
Dew Point	LFUZ98	LFUA18 LFUA21 LFUB00 LFUB03 LFUB06 LFUB09 LFUB12 LFUB15 LFUB18 LFUB21 LFUC00 LFUC03 LFUC06 LFUC09 LFUC12 LFUC15 LFUC18 LFUC21 LFUD00 LFUD03 LFUD06 LFUD09 LFUD12 LFUD15 LFUD18 LFUD21 LFUE00 LFUE03 LFUE06 LFUE09 LFUE12 LFUE15 LFUE18 LFUE21 LFUF00 LFUF03 LFUF06 LFUF09 LFUF12 LFUF15 LFUF18 LFUF21 LFUG00 LFUG03 LFUG06 LFUG09 LFUG12 LFUG15 LFUG18 LFUG21 LFUH00 LFUH03 LFUH06 LFUH09 LFUH12 LFUH15 LFUH18 LFUH21 LFUI00 LFUI03 LFUI06 LFUI09 LFUI12 LFUI15 LFUI18 LFUI21

		LFUJ00
Daytime Max	LGUZ98	LGUC00 LGUD00 LGUE00 LGUF00 LGUG00 LGUH00 LGUI00 LGUJ00
Nighttime Min	LHUZ98	LHUB12 LHUC12 LHUD12 LHUE12 LHUF12 LHUG12 LHUH12 LHUI12
Quantitative Precip. (6h)	LIUZ98	LIUB00 LIUB06 LIUB12 LIUB18 LIUC00 LIUC06 LIUC12 LIUC18 LIUD00 LIUD06 LIUD12 LIUD18 LIUE00 LIUE06 LIUE12 LIUE18 LIUF00 LIUF06 LIUF12 LIUF18 LIUG00 LIUG06 LIUG12 LIUG18 LIUH00 LIUH06 LIUH12
Tstm. Prob. (6h)	LJUZ98	LJUB00 LJUB06 LJUB12 LJUB18 LJUC00 LJUC06 LJUC12 LJUC18 LJUD00 LJUD06 LJUD12 LJUD18 LJUE00LJUE06 LJUE12 LJUE18 LJUF00 LJUF06 LJUF12 LJUF18 LJUG00 LJUG06 LJUG12 LJUG18 LJUH00 LJUH06 LJUH12 LJUH18 LJUI00 LJUI06 LJUI12 LJUI18 LJUJ00
Precip. Type	LLUZ98	LLUA18 LLUA21 LLUB00 LLUB03 LLUB06 LLUB09 LLUB12 LLUB15 LLUB18 LLUB21 LLUC00 LLUC03 LLUC06 LLUC09 LLUC12 LLUC15 LLUC18 LLUC21 LLUD00 LLUD03 LLUD06 LLUD09 LLUD12 LLUD15 LLUD18 LLUD21 LLUE00 LLUE03 LLUE06 LLUE09 LLUE12 LLUE15 LLUE18 LLUE21 LLUF00 LLUF03 LLUF06 LLUF09 LLUF12 LLUF15 LLUF18 LLUF21 LLUG00 LLUG03 LLUG06 LLUG09 LLUG12 LLUG15 LLUG18 LLUG21 LLUH00 LLUH03 LLUH06 LLUH09 LLUH12 LLUH15 LLUH18 LLUH21 LLUI00 LLUI03 LLUI06 LLUI09 LLUI12 LLUI15 LLUI18 LLUI21 LLUJ00
Relative Humidity	LRUZ98	LRUA18 LRUA21 LRUB00 LRUB03 LRUB06 LRUB09 LRUB12 LRUB15 LRUB18 LRUB21 LRUC00 LRUC03 LRUC06 LRUC09 LRUC12 LRUC15 LRUC18 LRUC21 LRUD00 LRUD03 LRUD06 LRUD09 LRUD12 LRUD15 LRUD18 LRUD21 LRUE00 LRUE03 LRUE06 LRUE09 LRUE12 LRUE15 LRUE18 LRUE21 LRUF00 LRUF03 LRUF06 LRUF09 LRUF12 LRUF15 LRUF18 LRUF21

		LRUG00 LRUG03 LRUG06 LRUG09 LRUG12 LRUG15 LRUG18 LRUG21 LRUH00 LRUH03 LRUH06 LRUH09 LRUH12 LRUH15 LRUH18 LRUH21 LRUI00 LRUI03 LRUI06 LRUI09 LRUI12 LRUI15 LRUI18 LRUI21 LRUJ00
Snowfall Amount (24h)	LSUZ98	LSUC00 LSUC12 LSUD00 LSUD12 LSUE00 LSUE12 LSUF00 LSUF12 LSUG00 LSUG12
PoP (6h)	LUUZ98	LUUB00 LUUB06 LUUB12 LUUB18 LUUC00 LUUC06 LUUC12 LUUC18 LUUD00 LUUD06 LUUD12 LUUD18 LUUE00 LUUE06 LUUE12 LUUE18 LUUF00 LUUF06 LUUF12 LUUF18 LUUG00 LUUG06 LUUG12 LUUG18 LUUH00 LUUH06 LUUH12 LUUH18 LUUI00 LUUI06 LUUI12 LUUI18 LUUJ00
Quantitative Precip. (12h)	LVUZ98	LVUB06 LVUB12 LVUB18 LVUC00 LVUC06 LVUC12 LVUC18 LVUD00 LVUD06 LVUD12 LVUD18 LVUE00 LVUE06 LVUE12 LVUE18 LVUF00 LVUF06 LVUF12 LVUF18 LVUG00 LVUG06 LVUG12 LVUG18 LVUH00 LVUH06 LVUH12
Wind Gusts	LWUZ98	LWUA18 LWUA21 LWUB00 LWUB03 LWUB06 LWUB09 LWUB12 LWUB15 LWUB18 LWUB21 LWUC00 LWUC03 LWUC06 LWUC09 LWUC12 LWUC15 LWUC18 LWUC21 LWUD00 LWUD03 LWUD06 LWUD09 LWUD12 LWUD15 LWUD18 LWUD21 LWUE00 LWUE03 LWUE06 LWUE09 LWUE12 LWUE15 LWUE18 LWUE21 LWUF00 LWUF03 LWUF06 LWUF09 LWUF12 LWUF15 LWUF18 LWUF21 LWUG00 LWUG03 LWUG06 LWUG09 LWUG12 LWUG15 LWUG18 LWUG21 LWUH00 LWUH03 LWUH06 LWUH09 LWUH12 LWUH15 LWUH18 LWUH21 LWUI00 LWUI03 LWUI06 LWUI09 LWUI12 LWUI15 LWUI18 LWUI21 LWUJ00
Tstm. Prob. (12h)	LXUZ98	LXUB06 LXUB12 LXUB18 LXUC00 LXUC06 LXUC12 LXUC18 LXUD00 LXUD06 LXUD12 LXUD18 LXUE00 LXUE06 LXUE12 LXUE18 LXUF00 LXUF06 LXUF12 LXUF18 LXUG00 LXUG06 LXUG12 LXUG18 LXUH00 LXUH06 LXUH12 LXUH18

		LXUI00 LXUI06 LXUI12 LXUI18 LXUJ00
Tstm. Prob. (3h)	$LYUA_2$ii	LYUA21 LYUB00 LYUB03 LYUB06 LYUB09 LYUB12 LYUB15 LYUB18 LYUB21 LYUC00 LYUC03 LYUC06 LYUC09 LYUC12 LYUC15 LYUC18 LYUC21 LYUD00 LYUD03 LYUD06 LYUD09 LYUD12 LYUD15 LYUD18 LYUD21 LYUE00 LYUE03 LYUE06 LYUE09 LYUE12