OPERATIONAL MRMS GRIB2 TABLES

NOTE: All GRIB2 MRMS product filenames have "MRMS_" prepended. For example, "ReflectivityAtLowestAltitude" is actually "MRMS_ReflectivityAtLowestAltitude".

Below is an example filename pattern for MRMS data:

```
/data/realtime/outgoing/grib2/MRMS_ReflectivityAtLowestAltitude_00.50_20150212-183408.grib2.gz
```

where "00.50" is the height of the field in kilometers and "20150212-183408" is the UTC time stamp [year][month][day]-[hour][minute][second]

Originating Center: 161 (US NOAA Office of Oceanic and Atmospheric Research)
Subcenter: 0 (National Severe Storms Lab)
Discipline: 209

Download the data (.csv format): **User Table** | **Flag Table**

CATEGORY	PARAMETER	NAME	UNIT	MISSING	RANGE FOLDED	NO COVERAGE	DESCRIPTION	NOTES
2	0	LightningDensityNLDN1min	flashes/km^2/min	-1	n/a	-3	CG Lightning Density 1-min - NLDN	
2	1	LightningDensityNLDN5min	flashes/km^2/min	-1	n/a	-3	CG Lightning Density 5-min - NLDN	
2	2	LightningDensityNLDN15min	flashes/km^2/min	-1	n/a	-3	CG Lightning Density 15-min - NLDN	
2	3	LightningDensityNLDN30min	flashes/km^2/min	-1	n/a	-3	CG Lightning Density 30-min - NLDN	
2	4	LightningProbabilityNext30min	%	0	n/a	0	Lightning Probability 0-30 minutes - NLDN	updated units and special

CATEGORY	PARAMETER	NAME	UNIT	MISSING	RANGE FOLDED	NO COVERAGE	DESCRIPTION	NOTES
								values
3	0	MergedAzShear0to2kmAGL	0.001/s	0	0	0	Azimuth Shear 0-2km AGL	updated units and special values
3	1	MergedAzShear3to6kmAGL	0.001/s	0	0	0	Azimuth Shear 3-6km AGL	updated units and special values
3	2	RotationTrack30min	0.001/s	0	n/a	0	Rotation Track 0-2km AGL 30-min	updated units and special values
3	3	RotationTrack60min	0.001/s	0	n/a	0	Rotation Track 0-2km AGL 60-min	updated units and special values
3	4	RotationTrack120min	0.001/s	0	n/a	0	Rotation Track 0-2km AGL 120-min	updated units and special values
3	5	RotationTrack240min	0.001/s	0	n/a	0	Rotation Track 0-2km AGL 240-min	updated units and special values
3	6	RotationTrack360min	0.001/s	0	n/a	0	Rotation Track 0-2km AGL 360-min	updated units and special values
3	7	RotationTrack1440min	0.001/s	0	n/a	0	Rotation Track 0-2km AGL 1440-min	updated units and special values
3	14	RotationTrackML30min	0.001/s	0	n/a	0	Rotation Track 0-3km AGL 30-min	updated units and special values
3	15	RotationTrackML60min	0.001/s	0	n/a	0	Rotation Track 0-3km AGL 60-min	updated units and special values
3	16	RotationTrackML120min	0.001/s	0	n/a	0	Rotation Track 0-3km AGL 120-min	updated units and special values
3	17	RotationTrackML240min	0.001/s	0	n/a	0	Rotation Track 0-3km AGL 240-min	updated units and special values
3	18	RotationTrackML360min	0.001/s	0	n/a	0	Rotation Track 0-3km AGL 360-min	updated units and special values

CATEGORY	PARAMETER	NAME	UNIT	MISSING	RANGE FOLDED	NO COVERAGE	DESCRIPTION	NOTES
3	19	RotationTrackML1440min	0.001/s	0	n/a	0	Rotation Track 0-3km AGL 1440-min	updated units and special values
3	26	SHI	index	-1	n/a	-3	Severe Hail Index	
3	27	POSH	%	-1	n/a	-3	Prob of Severe Hail	
3	28	MESH	mm	-1	n/a	-3	Maximum Estimated Size of Hail (MESH)	
3	29	MESHMax30min	mm	-1	n/a	-3	MESH Hail Swath 30-min	
3	30	MESHMax60min	mm	-1	n/a	-3	MESH Hail Swath 60-min	
3	31	MESHMax120min	mm	-1	n/a	-3	MESH Hail Swath 120-min	
3	32	MESHMax240min	mm	-1	n/a	-3	MESH Hail Swath 240-min	
3	33	MESHMax360min	mm	-1	n/a	-3	MESH Hail Swath 360-min	
3	34	MESHMax1440min	mm	-1	n/a	-3	MESH Hail Swath 1440-min	
3	41	VIL	kg/m^2	-1	n/a	-3	Vertically Integrated Liquid	
3	42	VILDensity	g/m^3	-1	n/a	-3	Vertically Integrated Liquid Density	
3	43	VII	kg/m^2	-1	n/a	-3	Vertically Integrated Ice	
3	44	EchoTop18	km MSL	-1	n/a	-3	Echo Top - 18 dBZ	
3	45	EchoTop30	km MSL	-1	n/a	-3	Echo Top - 30 dBZ	
3	46	EchoTop50	km MSL	-1	n/a	-3	Echo Top - 50 dBZ	
3	47	EchoTop60	km MSL	-1	n/a	-3	Echo Top - 60 dBZ	
3	48	H50AboveM20C	km	-99	n/a	-999	Thickness [50 dBZ top - (-20C)]	updated special values
3	49	H50Above0C	km	-99	n/a	-999	Thickness [50 dBZ top - 0C]	updated special values
3	50	H60AboveM20C	km	-99	n/a	-999	Thickness [60 dBZ top - (-20C)]	updated special values
3	51	H60Above0C	km	-99	n/a	-999	Thickness [60 dBZ top - 0C]	updated special values
3	52	Reflectivity0C	dBZ	-99	n/a	-999	Isothermal Reflectivity at 0C	
3	53	ReflectivityM5C	dBZ	-99	n/a	-999	Isothermal Reflectivity at -5C	
3	54	ReflectivityM10C	dBZ	-99	n/a	-999	Isothermal Reflectivity at -10C	
3	55	ReflectivityM15C	dBZ	-99	n/a	-999	Isothermal Reflectivity at -15C	
3	56	ReflectivityM20C	dBZ	-99	n/a	-999	Isothermal Reflectivity at -20C	
3	57	ReflectivityAtLowestAltitude	dBZ	-99	n/a	-999	ReflectivityAtLowestAltitude	

CATEGORY	PARAMETER	NAME	UNIT	MISSING	RANGE FOLDED	NO COVERAGE	DESCRIPTION	NOTES
3	58	MergedReflectivityAtLowestAltitude	dBZ	-99	n/a	-999	Non Quality Controlled Reflectivity At Lowest Altitude	Available in March 2015
4	0	IRband4	K	-99	n/a	-999	Infrared (E/W blend)	not disseminated
4	1	Visible	non-dim	-1	n/a	-3	Visible (E/W blend)	not disseminated
4	2	WaterVapor	K	-99	n/a	-999	Water Vapor (E/W blend)	not disseminated
4	3	CloudCover	K	-99	n/a	-999	Cloud Cover	Available in March 2015
6	0	PrecipFlag	flag	-1	n/a	-3	Surface Precipitation Type (Convective, Stratiform, Tropical, Hail, Snow)	see flag table
6	1	PrecipRate	mm/hr	-1	n/a	-3	Radar Precipitation Rate	
6	2	RadarOnlyQPE01H	mm	-1	n/a	-3	Radar precipitation accumulation 1-hour	
6	3	RadarOnlyQPE03H	mm	-1	n/a	-3	Radar precipitation accumulation 3-hour	
6	4	RadarOnlyQPE06H	mm	-1	n/a	-3	Radar precipitation accumulation 6-hour	
6	5	RadarOnlyQPE12H	mm	-1	n/a	-3	Radar precipitation accumulation 12-hour	
6	6	RadarOnlyQPE24H	mm	-1	n/a	-3	Radar precipitation accumulation 24-hour	
6	7	RadarOnlyQPE48H	mm	-1	n/a	-3	Radar precipitation accumulation 48-hour	
6	8	RadarOnlyQPE72H	mm	-1	n/a	-3	Radar precipitation accumulation 72-hour	
6	9	GaugeCorrQPE01H	mm	-1	n/a	-3	Local gauge bias corrected radar precipitation accumulation 1-hour	
6	10	GaugeCorrQPE03H	mm	-1	n/a	-3	Local gauge bias corrected radar precipitation accumulation 3-hour	
6	11	GaugeCorrQPE06H	mm	-1	n/a	-3	Local gauge bias corrected radar precipitation accumulation 6-hour	
6	12	GaugeCorrQPE12H	mm	-1	n/a	-3	Local gauge bias corrected radar precipitation accumulation 12-hour	

CATEGORY	PARAMETER	NAME	UNIT	MISSING	RANGE FOLDED	NO COVERAGE	DESCRIPTION	NOTES
6	13	GaugeCorrQPE24H	mm	-1	n/a	-3	Local gauge bias corrected radar precipitation accumulation 24-hour	
6	14	GaugeCorrQPE48H	mm	-1	n/a	-3	Local gauge bias corrected radar precipitation accumulation 48-hour	
6	15	GaugeCorrQPE72H	mm	-1	n/a	-3	Local gauge bias corrected radar precipitation accumulation 72-hour	
6	16	GaugeOnlyQPE01H	mm	-1	n/a	-3	Gauge only precipitation accumulation 1-hour	
6	17	GaugeOnlyQPE03H	mm	-1	n/a	-3	Gauge only precipitation accumulation 3-hour	
6	18	GaugeOnlyQPE06H	mm	-1	n/a	-3	Gauge only precipitation accumulation 6-hour	
6	19	GaugeOnlyQPE12H	mm	-1	n/a	-3	Gauge only precipitation accumulation 12-hour	
6	20	GaugeOnlyQPE24H	mm	-1	n/a	-3	Gauge only precipitation accumulation 24-hour	
6	21	GaugeOnlyQPE48H	mm	-1	n/a	-3	Gauge only precipitation accumulation 48-hour	
6	22	GaugeOnlyQPE72H	mm	-1	n/a	-3	Gauge only precipitation accumulation 72-hour	
6	23	MountainMapperQPE01H	mm	-1	n/a	-3	Mountain Mapper precipitation accumulation 1-hour	
6	24	MountainMapperQPE03H	mm	-1	n/a	-3	Mountain Mapper precipitation accumulation 3-hour	
6	25	MountainMapperQPE06H	mm	-1	n/a	-3	Mountain Mapper precipitation accumulation 6-hour	
6	26	MountainMapperQPE12H	mm	-1	n/a	-3	Mountain Mapper precipitation accumulation 12-hour	
6	27	MountainMapperQPE24H	mm	-1	n/a	-3	Mountain Mapper precipitation accumulation 24-hour	
6	28	MountainMapperQPE48H	mm	-1	n/a	-3	Mountain Mapper precipitation accumulation 48-hour	
6	29	MountainMapperQPE72H	mm	-1	n/a	-3	Mountain Mapper precipitation accumulation 72-hour	
7	0	ModelSurfaceTemp	C	-99	n/a	-999	Model Surface temperature [RAP 13km]	Available in March 2015

CATEGORY	PARAMETER	NAME	UNIT	MISSING	RANGE FOLDED	NO COVERAGE	DESCRIPTION	NOTES
7	1	ModelWetBulbTemp	C	-99	n/a	-999	Model Surface wet bulb temperature [RAP 13km]	Available in March 2015
7	2	WarmRainProbability	%	-1	n/a	-3	Probability of warm rain [RAP 13km derived]	
7	3	ModelHeight0C	m MSL	-1	n/a	-3	Model Freezing Level Height [RAP 13km]	Available in March 2015
7	4	BrightBandTopHeight	m AGL	-1	n/a	-3	Brightband Top Radar [RAP 13km derived]	
7	5	BrightBandBottomHeight	m AGL	-1	n/a	-3	Brightband Bottom Radar [RAP 13km derived]	
8	0	RadarQualityIndex	non-dim	-1	n/a	-3	Radar Quality Index	
8	1	GaugeInflIndex01H	non-dim	-1	n/a	-3	Gauge Influence Index for 1-hour QPE	Available in March 2015
8	2	GaugeInflIndex03H	non-dim	-1	n/a	-3	Gauge Influence Index for 3-hour QPE	Available in March 2015
8	3	GaugeInflIndex06H	non-dim	-1	n/a	-3	Gauge Influence Index for 6-hour QPE	Available in March 2015
8	4	GaugeInflIndex12H	non-dim	-1	n/a	-3	Gauge Influence Index for 12-hour QPE	Available in March 2015
8	5	GaugeInflIndex24H	non-dim	-1	n/a	-3	Gauge Influence Index for 24-hour QPE	Available in March 2015
8	6	GaugeInflIndex48H	non-dim	-1	n/a	-3	Gauge Influence Index for 48-hour QPE	Available in March 2015
8	7	GaugeInflIndex72H	non-dim	-1	n/a	-3	Gauge Influence Index for 72-hour QPE	Available in March 2015
8	8	SeamlessHSR	dBZ	-99	n/a	-999	Seamless Hybrid Scan Reflectivity with VPR correction	
8	9	SeamlessHSRHeight	km AGL	-1	n/a	-3	Height of Seamless Hybrid Scan Reflectivity	
9	0	ConusMergedReflectivityQC	dBZ	-99	n/a	-999	WSR-88D 3D Reflectivty Mosaic - 33 CAPPIS (500-19000m)	33 levels (one file per level)
9	1	ConusPlusMergedReflectivityQC	dBZ	-99	n/a	-999	All Radar 3D Reflectivty Mosaic - 33 CAPPIS (500-19000m)	33 levels (one file per level)
10	0	MergedReflectivityQCComposite	dBZ	-99	n/a	-999	Composite Reflectivity Mosaic (optimal method)	
10	1	HeightCompositeReflectivity	m MSL	-1	n/a	-3	Height of Composite Reflectivity Mosaic (optimal method)	
10	2	LowLevelCompositeReflectivity	dBZ	-99	n/a	-999	Low-Level Composite Reflectivity Mosaic (0-4km)	

CATEGORY	PARAMETER	NAME	UNIT	MISSING	RANGE FOLDED	NO COVERAGE	DESCRIPTION	NOTES
10	3	HeightLowLevelCompositeReflectivity	m MSL	-1	n/a	-3	Height of Low-Level Composite Reflectivity Mosaic (0-4km)	
10	4	LayerCompositeReflectivity_Low	dBZ	-99	n/a	-999	Layer Composite Reflectivity Mosaic 0-24kft (low altitude)	
10	5	LayerCompositeReflectivity_High	dBZ	-99	n/a	-999	Layer Composite Reflectivity Mosaic 24-60 kft (highest altitude)	
10	6	LayerCompositeReflectivity_Super	dBZ	-99	n/a	-999	Layer Composite Reflectivity Mosaic 33-60 kft (super high altitude)	
10	7	ReflectivityCompositeHourlyMax	dBZ	-99	n/a	-999	Composite Reflectivity Hourly Maximum	
11	0	MergedBaseReflectivityQC	dBZ	-99	n/a	-999	Mosaic Base Reflectivity (optimal method)	
11	1	MergedReflectivityComposite	dBZ	-99	n/a	-999	UnQc'd Composite Reflectivity Mosaic (max ref)	
11	2	MergedReflectivityQComposite	dBZ	-99	n/a	-999	Composite Reflectivity Mosaic (max ref)	

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