

**BUFR TABLES D**  
**(Version 1 - originating center 41)**

TABLE REFERENCE			TABLE REFERENCES			ELEMENT NAME
F	X	Y				
<b><i>General information about radar product</i></b>						
3	1	192	3	1	11	Date of observation
			3	1	12	Time of observation
			3	1	23	Latitude/longitude of top left corner of the image
			3	1	23	Latitude/longitude of top right corner of the image
			3	1	23	Latitude/longitude of bottom right corner of the image
			3	1	23	Latitude/longitude of bottom left corner of the image
			0	29	201	Projection type
			0	5	2	Latitude of radar
			0	6	2	Longitude of radar
			0	5	33	Pixel size on horizontal between columns
			0	6	33	Pixel size on horizontal between rows
			0	30	21	Number of pixels per row
			0	30	22	Number of pixels per column
<b><i>Projection information</i></b>						
3	1	193	0	29	199	Semi-major axis of rotation ellipsoid
			0	29	200	Semi-minor axis of rotation ellipsoid
			0	29	193	Longitude Origin
			0	29	194	Latitude Origin
			0	29	195	X-coordinate of the upper left corner of the upper left pixel of the image
			0	29	196	Y-coordinate of the upper left corner of the upper left pixel of the image
			0	29	197	1st Standard Parallel
			0	29	198	2nd Standard Parallel
<b><i>General information about radar product (high resolution)</i></b>						
3	1	194	3	1	11	Date of observation
			3	1	12	Time of observation
			3	1	21	Latitude/longitude of top left corner of the image
			3	1	21	Latitude/longitude of top right corner of the image
			3	1	21	Latitude/longitude of bottom right corner of the image
			3	1	21	Latitude/longitude of bottom left corner of the image
			0	29	201	Projection type
			0	5	1	Latitude of radar
			0	6	1	Longitude of radar
			0	7	1	Height of radar
			0	5	33	Pixel size on horizontal between columns
			0	6	33	Pixel size on horizontal between rows
			0	30	21	Number of pixels per row
			0	30	22	Number of pixels per column
<b><i>Heights of side view</i></b>						
3	13	192	1	1	0	Delayed replication of 1 descriptor
			0	31	1	Delayed descriptor replication factor

TABLE REFERENCE			TABLE REFERENCES			ELEMENT NAME
F	X	Y				
			0	10	7	Height of side view
						<b>4 bit per pixel radar images (top view)</b>
3	21	192	1	10	0	Delayed replication of 10 descriptors
			0	31	2	Extended delayed descriptor replication factor
			0	5	31	Row number
			1	7	0	Delayed replication of 7 descriptors
			0	31	1	Delayed descriptor replication factor
			1	2	0	Delayed replication of 2 descriptors
			0	31	1	Replication factor
			0	31	12	Extended delayed descriptor and data repetition factor
			0	30	1	Pixel value (4 bit)
			1	1	0	Delayed replication of 1 descriptor
			0	31	1	Replication factor
			0	30	1	Pixel value (4 bit)
						<b>8 bit per pixel radar images (top view)</b>
3	21	193	1	10	0	Delayed replication of 10 descriptors
			0	31	2	Extended delayed descriptor replication factor
			0	5	31	Row number
			1	7	0	Delayed replication of 7 descriptors
			0	31	1	Delayed descriptor replication factor
			1	2	0	Delayed replication of 2 descriptors
			0	31	1	Delayed descriptor replication factor
			0	31	12	Extended delayed descriptor and data repetition factor
			0	30	2	Pixel value (8 bit)
			1	1	0	Delayed replication of 1 descriptor
			0	31	1	Delayed descriptor replication factor
			0	30	2	Pixel value (8 bit)
						<b>4 bit per pixel radar image (north-south view)</b>
3	21	194	1	10	0	Delayed replication of 1 descriptor
			0	31	2	Extended delayed descriptor replication factor
			0	5	31	Row number
			1	7	0	Delayed replication of 7 descriptors
			0	31	1	Delayed descriptor replication factor
			1	2	0	Delayed replication of 2 descriptors
			0	31	1	Replication factor
			0	31	12	Extended delayed descriptor and data repetition factor
			0	30	1	Pixel value (4 bit)
			1	1	0	Delayed replication of 1 descriptor
			0	31	1	Replication factor
			0	30	1	Pixel value (4 bit)
						<b>8 bit per pixel radar image (north-south view)</b>
3	21	195	1	10	0	Delayed replication of 10 descriptors
			0	31	2	Extended delayed descriptor replication factor
			0	5	31	Row number
			1	7	0	Delayed replication of 7 descriptors
			0	31	1	Delayed descriptor replication factor
			1	2	0	Delayed replication of 2 descriptors
			0	31	1	Delayed descriptor replication factor
			0	31	12	Extended delayed descriptor and data repetition factor
			0	30	2	Pixel value (8 bit)

TABLE REFERENCE			TABLE REFERENCES			ELEMENT NAME
F	X	Y				
			1	1	0	Delayed replication of 1 descriptor
			0	31	1	Delayed descriptor replication factor
			0	30	2	Pixel value (8 bit)
			<b>4 bit per pixel radar image (east-west view)</b>			
3	21	196	1	10	0	Delayed replication of 10 descriptors
			0	31	2	Extended delayed descriptor replication factor
			0	5	31	Row number
			1	7	0	Delayed replication of 7 descriptors
			0	31	1	Delayed descriptor replication factor
			1	2	0	Delayed replication of 2 descriptors
			0	31	1	Delayed descriptor replication factor
			0	31	12	Extended delayed descriptor and data repetition factor
			0	30	1	Pixel value (4 bit)
			1	1	0	Delayed replication of 1 descriptor
			0	31	1	Delayed descriptor replication factor
			0	30	1	Pixel value (4 bit)
			<b>8 bit per pixel radar image (east-west view)</b>			
3	21	197	1	10	0	Delayed replication of 10 descriptors
			0	31	2	Extended delayed descriptor replication factor
			0	5	31	Row number
			1	7	0	Delayed replication of 7 descriptors
			0	31	1	Delayed descriptor replication factor
			1	2	0	Delayed replication of 2 descriptors
			0	31	1	Delayed descriptor replication factor
			0	31	12	Extended delayed descriptor and data repetition factor
			0	30	2	Pixel value (8 bit)
			1	1	0	Delayed replication of 1 descriptor
			0	31	1	Delayed descriptor replication factor
			0	30	2	Pixel value (8 bit)
			<b>Rain accumulation product</b>			
3	21	198	1	3	0	Delayed replication of 3 descriptors
			0	31	2	Extended delayed descriptor replication factor
			1	1	0	Delayed replication of 1 descriptor
			0	31	1	Delayed descriptor replication factor
			0	13	16	Precipitable water
			<b>Polar reflectivity data for a given elevation</b>			
3	21	199	1	10	0	Delayed replication of 10 descriptors
			0	31	1	Delayed descriptor replication factor
			3	1	13	Time of scan start
			0	2	134	Antenna beam azimuth
			0	2	135	Antenna elevation
			3	21	6	Integration characteristics
			0	21	201	Range-bin size
			0	21	202	Azimuthal resolution
			0	2	193	Antenna rotation direction
			0	30	194	Number of bins along the radial
			0	30	195	Number of azimuths
			3	21	193	Compressed pixmap
			<b>Compressed rainfall accumulation data</b>			

TABLE REFERENCE			TABLE REFERENCES			ELEMENT NAME
F	X	Y				
3	21	200	1	10	0	Delayed replication of 10 descriptors
			0	31	2	Extended delayed descriptor replication factor
			0	5	31	Row number
			1	7	0	Delayed replication of 7 descriptors
			0	31	1	Delayed descriptor replication factor
			1	2	0	Delayed replication of 2 descriptors
			0	31	1	Delayed descriptor replication factor
			0	31	12	Extended delayed descriptor and data replication factor
			0	13	11	Total precipitation
			1	1	0	Delayed replication of 1 descriptor
			0	31	1	Delayed descriptor replication factor
			0	13	11	Total precipitation
			<b>Polar radial wind data for a given elevation</b>			
3	21	201	1	10	0	Delayed replication of 10 descriptors
			0	31	1	Delayed descriptor replication factor
			3	1	13	Time of scan start
			0	2	134	Antenna beam azimuth
			0	2	135	Antenna elevation
			3	21	6	Integration characteristics
			0	21	201	Range-bin size
			0	21	202	Azimuthal resolution
			0	2	193	Antenna rotation direction
			0	30	194	Number of bins along the radial
			0	30	195	Number of azimuths
			3	21	202	Compressed radial wind data array
			<b>Compressed radial wind data array</b>			
3	21	202	1	10	0	Delayed replication of 10 descriptors
			0	31	2	Extended delayed descriptor replication factor
			0	5	31	Row number
			1	7	0	Delayed replication of 7 descriptors
			0	31	1	Delayed descriptor replication factor
			1	2	0	Delayed replication of 2 descriptors
			0	31	1	Delayed descriptor replication factor
			0	31	12	Extended delayed descriptor and data replication factor
			0	21	14	Doppler mean velocity
			1	1	0	Delayed replication of 1 descriptor
			0	31	1	Delayed descriptor replication factor
			0	21	14	Doppler mean velocity
			<b>ODIM polar volume mandatory content</b>			
3	21	203	1	12	0	Delayed replication of 12 descriptors
			0	31	1	Number of scans
			3	21	205	Time period (/dataset?/what/startdate, /dataset?/what/starttime, /dataset?/what/enddate and /dataset?/what/endtime)
			0	30	196	Type of product (/dataset?/what/product)
			0	2	135	Antenna elevation (/dataset?/where/elangle)
			0	30	194	Number of bins along the radial (/dataset?/where/nbins)
			0	21	201	Range-bin size (/dataset?/where/rscale)

TABLE REFERENCE			TABLE REFERENCES			ELEMENT NAME
F	X	Y				
			0	21	203	Range-bin offset (/dataset?/where/rstart)
			0	30	195	Number of azimuths (/dataset?/where/nrays)
				2	134	Antenna beam azimuth (of first ray) (/dataset?/where/a1gate)
			1	2	0	Delayed replication of 2 descriptors
			0	31	1	Number of parameters
			0	30	196	Type of product (/dataset?/data?/what/quantity)
			3	21	206	ODIM compressed array
						<b>ODIM additional station identifier</b>
3	21	204	1	2	0	Delayed replication of 2 descriptors
				0	31	1
				0	1	Delayed descriptor replication factor
				0	192	Type of station identifier (RAD, ORG, PLC, CTY or CMT)
				0	193	Station identifier
						<b>ODIM times stamps</b>
3	21	205	1	2	2	Replication of 2 descriptors (start time stamp and end time stamp)
				3	1	11
				3	1	Date (year, month, day)
					13	Time (hour, minute, second)
						<b>ODIM compressed array</b>
3	21	206	0	30	197	Compression method
				1	3	0
				0	31	2
				1	1	Number of chunks
				0	31	0
				0	30	Delayed replication of 1 descriptor
				0	31	2
				0	30	Size of chunk
					198	Byte element of a compressed array
						<b>List of radars included in a composite</b>
3	21	250	1	4	0	Delayed replication of 4 descriptors
				0	31	1
				0	1	Replication factor
				0	1	1
				0	1	WMO block number
				0	1	2
				0	31	WMO station number
				0	31	31
				0	31	Data present indicator
				0	33	3
						<b>RMA RHI objects mandatory content</b>
3	21	253	1	15	0	Delayed replication of 15 descriptors
				0	31	1
					3	Number of scans
					21	Time period (/dataset?/what/startdate, /dataset?/what/starttime, /dataset?/what/enddate and /dataset?/what/endtime)
					205	
				0	30	Type of product (/dataset?/what/product)
					0	196
				0	2	Antenna elevation (of first ray) (/dataset?/where/elangle)
					135	
				0	2	Antenna elevation (of last ray) (/dataset?/where/elangle)
					135	
				0	21	Range-bin size (/dataset?/where/rscale)
					201	
				0	21	Range-bin offset (/dataset?/where/rstart)
					203	
				0	30	Number of azimuths (/dataset?/where/nrays)
					195	
				0	2	Antenna beam azimuth (/dataset?/where/startaz)
					134	
				1	1	Delayed replication of 1 descriptors
					0	
				0	31	Number of parameters
					1	
				0	30	Number of bins along the radial
					194	

TABLE REFERENCE			TABLE REFERENCES			ELEMENT NAME
F	X	Y				
						(/dataset?/where/nbins)
			1	2	0	Delayed replication of 2 descriptors
			0	31	1	Number of bins per ray
			0	30	196	Type of product (/dataset?/data?/what/quantity)
			3	21	206	ODIM compressed array
						<b>RMA HELI objects mandatory content</b>
3	21	254	1	14	0	Delayed replication of 14 descriptors
			0	31	1	Number of scans
					205	Time period (/dataset?/what/startdate, /dataset?/what/starttime, /dataset?/what/enddate and /dataset?/what/endtime)
			3	21	0	196
					30	Type of product (/dataset?/what/product)
					135	Antenna elevation (of first ray) (/dataset?/where/elangle)
					2	Antenna elevation (of last ray) (/dataset?/where/elangle)
					194	Number of bins along the radial (/dataset?/where/nbins)
					0	21
					21	Range-bin size (/dataset?/where/rscale)
					0	203
					30	Range-bin offset (/dataset?/where/rstart)
					195	Number of azimuths (/dataset?/where/nrays)
					0	2
					134	Antenna beam azimuth (of first ray) (/dataset?/where/startaz)
					0	2
					134	Antenna beam azimuth (of last ray) (/dataset?/where/startaz)
					1	2
					0	0
					31	Delayed replication of 2 descriptors
					1	Number of bins per ray
					0	30
					196	Type of product (/dataset?/data?/what/quantity)
					3	21
					206	ODIM compressed array