

**GOVERNMENT OF INDIA  
MINISTRY OF EARTH SCIENCES  
LOK SABHA  
UNSTARRED QUESTION NO. 756  
TO BE ANSWERED ON WEDNESDAY, 7<sup>TH</sup> FEBRUARY, 2024**

**DOPPLER WEATHER RADARS**

756. SHRI NARANBHAI KACHHADIYA:  
SHRI BIDYUT BARAN MAHATO:

Will the Minister of EARTH SCIENCES be pleased to state:

- (a) the difference between C-Band and X-Band Radar along with the coverage range of each of the C and X bands;
- (b) the present status of the implementation of the project along with the details of site selected for the purpose; and
- (c) the fresh steps taken by the Government to install an X-Band Doppler radar at suitable sites in Gujarat and Jharkhand in order to provide correct weather information to the farmers of whole of the coastal regions?

**ANSWER**

**THE MINISTER OF EARTH SCIENCES  
(SHRI KIREN RIJJU)**

- (a) C-Band radars are functioning at about 5 cm wave length, whereas X-Band radars functions at 3 cm. The C-Band radar antennas are larger than the X-Band radar antennas. The C-Band radar provides the radial coverage of 250 kms from its centre, whereas X-Band radar covers 100 kms.
- (b) Currently, there are 39 Doppler Weather Radars (DWRs) installed across the country. The locations of these DWRs have been distributed in the best possible way to monitor severe weather conditions across multiple States of the Indian region. The details are provided in Annexure-1.
- (c) India Meteorological Department has proposed to install C-Band DWRs at Ahmedabad in Gujarat and Ranchi in Jharkhand.

**Annexure-1****DWRs network over India with location names and name of States**

<b>S. No.</b>	<b>States</b>	<b>Name of Station</b>	<b>DWR type</b>
1.	West Bengal	Kolkata	S-Band
2.	Andhra Pradesh	Machilipatnam	S-Band
3.		Visakhapatnam	S-Band
4.		Hyderabad	S-Band
5.		Sriharikota (ISRO),	S-Band
6.	Delhi	Palam	S-Band
7.		HQ New Delhi	C-Band (Polarimetric)
8.		Aya Nagar	X-Band
9.	Maharashtra	Nagpur	S-Band
10.		Mumbai	S-Band
11.		Mumbai Veravali	C-Band
12.		Solapur	C-Band
13.	Tripura	Agartala	S-Band
14.	Bihar	Patna	S-Band
15.	Uttar Pradesh	Lucknow	S-Band
16.	Punjab	Patiala	S-Band
17.	Assam	Mohanbari	S-Band
18.	Madhya Pradesh	Bhopal	S-Band
19.	Odisha	Paradip	S-Band
20.		Gopalpur	S-Band
21.	Tamil Nadu	Karaikal	S-Band
22.		Chennai NIOT	X-Band
23.		Chennai	S-Band
24.	Goa	Goa	S-Band
25.	Gujarat	Bhuj	S-Band
26.	Rajasthan	Jaipur	C-Band (Polarimetric)
27.	Jammu & Kashmir	Srinagar	X-Band
28.		Jammu	X-Band
29.		Banihal Top	X-Band
30.	Kerala	Kochi	S-Band
31.		VSSC (ISRO) Thiruvananthapuram	C-Band

32.	Uttarakhand	Mukteshwar	X-Band
33.		Surkanda Devi	X-Band
34.		Lansdowne	X- Band
35.	Ladakh	Leh	Transportable X-Band
36.	Himachal Pradesh	Kufri	X-Band
37.		Jot	X-Band
38.		Murari Devi	X-Band
39.	Meghalaya	Cherrapunji (ISRO)	S-Band

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