

# Incoherent Scatter Radar World Days

## What is a World Day?

A period of time when ALL Incoherent Scatter Radars operate simultaneously with a single science aim. This can be a single day or maybe as much as 5 days of continuous or quasi-continuous operation. The data taken during this period is freely available for ALL users, not just the world day proposers.

## Do all of the radars have to operate?

No. Ideally a world day would incorporate all radars BUT if your science topic only requires (for example) the high latitude radars then you can just request these. However, you must state this clearly in your proposal.

## Can all of the radars run at all times?

No. Some radars are limited by staff time, available hours, maintenance time etc. Time of year can be a big factor, for example it is very difficult to operate the EISCAT radars across the Christmas/New year period. It is important to establish what can be run and when! Some limitations are discussed later on, but talking to the individuals responsible for the radars early on should help with your planning.

## How are World Days selected?

The proposals are discussed at the World Day meeting at the CEDAR workshop. This meeting is chaired by the Chair or vice chair of the URSI Incoherent Scatter working group. Proposers are encouraged to attend this meeting and join in the discussion. Representatives from the radars will be present if possible and a consensus on which world days to run will be achieved. This may involve some merging of similar proposals, or reductions in time to some proposals. We aim to limit the absolute number of days of operation as world days to under 25-30 days. A preliminary calendar is drawn up at the meeting.

## What happens if my proposal is accepted?

If your proposal is accepted and entered into the preliminary calendar it is then up to you to ensure that each of the radar representatives knows exactly what mode their radar ought to be operating in. I.e. how the radar should be scanning? What altitude range should be focused on (do you know the exact code to use)? It is not enough to discuss with only one radar representative, you need to make sure that each radar that you intend to run knows what they are doing.

## Where are the radars?

The table below lists radars that may be available for use, including their locations and the principle contacts where available.

<a href="#">PFISR</a>	Poker Flat, Alaska	65.13	-47.04	Roger Varney
<a href="#">RISR-N</a>	Resolute Bay, Canada (North facing)	74.73	-94.91	Roger Varney
<a href="#">RISR-C</a>	Resolute Bay, Canada (South facing)	74.73	-94.91	Robert Gillies
<a href="#">EISCAT mainland</a>	Tromsø, Norway	69.58	19.23	Ingemar Häggström
<a href="#">EISCAT Svalbard</a>	Longyearbyen, Svalbard	78.15	16.02	Ingemar Häggström
<a href="#">Millstone Hill</a>	Haystack Observatory, USA	42.62	288.51	Philip Erikson
Jicamarca	Peru	-11.95	-76.87	Marco Milla
<a href="#">Arecibo</a>	Puerto Rico			Mike Sulzer
Kharkiv*	Ukraine	49.6	36.3	Sergii Panasenko
QJISR*	Qujing City, China	25.6	103.8	Ding Zomnghua
Irkutsk*	Siberia, Russia.	52.86	103.23	A. Potekhin
<a href="#">PAANSY*</a>	Syowa, Antarctica	69.900	39.58	Kaoru Sato

\* these radars have not routinely provided World Day data in the past (though some like Irkutsk have taken part), but may be positioned to do so in the future if required.

## How do I Apply?

To apply for World Day time you need to provide the following

- A compelling science case (approximate 2 pages)
- A list of radars that are required. This must include details of the types of experiment mode that each radar should operate.
- The time of year that the World Day should occur (ideally specific dates). It is possible to run on an alert basis but not all radars can accommodate this easily.
- Times of day that are of most importance (useful for radars unable to run continuously)

## What should I include in the science case:

- The overall aims of the experiments
- How the radars working together will address these aims
- If it is a repeat experiment, why it is needed, perhaps including results from previous attempts