

## A NEW HI-FIDELITY OBLIQUE HF RECEIVING SYSTEM

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### ABSTRACT

DSTO has built and tested a hardware and software prototype of a new HF oblique receiving system (called DDORS, a Direct Digital Oblique Receiving System).

Key attributes of this system are, it

- Is highly flexible in control and data acquisition
- Is highly sensitive & high fidelity with a large spurious free dynamic range
- Provides multiple overlapping and interleaved OIS images from a single antenna
- Is a reliable and cost effective network element

This poster briefly describes, the DDORS, some of its testing, results of comparison with the BARRY RCS7 and the kinds of superior oblique incident sonder images that can be produced with DDORS by using greater bandwidth (200 kHz) and overlapped FFT processing compared to conventional BARRY processing of kb=90 kHz every 100 kHz.