

EXHIBIT NO. 1

(Reference: Item No. 4(F))

The pulse duration is adjustable from 400 nanoseconds to 12 microseconds.
Bi-phase (180°) modulation may be employed in minimum intervals of 400 nanoseconds.

The pulse repetition frequency is also adjusted to the mode of operation, but cannot exceed 50 KHz.

EXHIBIT NO. 2

(Reference: Item No. 4(G))

Simple calculation using the minimum 400 nanosecond pulse/code cell durations yields:

Signal Level Below Peak;	Bandwidth;
-3 dB	2.2 MHz
-10 dB	3.7 MHz
-20 dB	12.7 MHz

These values have been confirmed by measurement.

22 December, 1999

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Exhibit 3

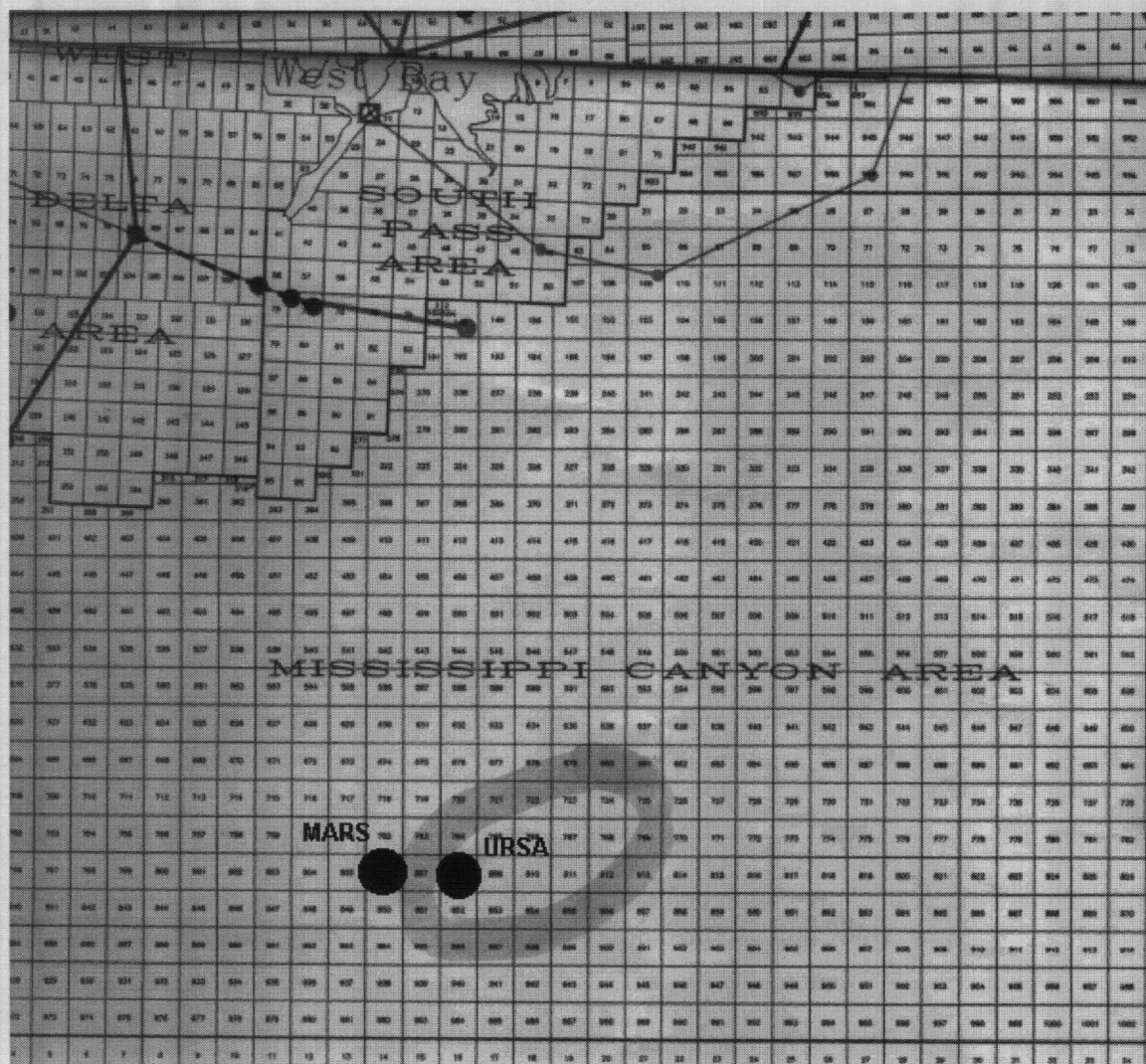


Figure 3. Deep Water Sites

EXHIBIT NO. 4

(Reference Item No. 6)

The antenna system will consist of one steerable four-panel micro-patch phased array planar antenna with sidelobe reduction fence. The antenna will be pointed vertically with electrically switched delays introduced to point it 23.5° off vertical in planes that are 90° from other. The antenna will have a beamwidth of $\sim 9^\circ$ by 9° and ~ 26 dB of gain.

Normal operation will consist of sequential transmissions in each of three (two oblique and one vertical) or five (four oblique and one vertical) directions.

EXHIBIT NO. 5

(Reference Item No. 10)

Radian International (Radian) and Sonoma Technology, Inc. (STI) have entered into a Cooperative Research and Development agreement with the National Oceanic and Atmospheric Administration (NOAA) to further expand and commercialize the wind profiling technology developed by NOAA. Wind profiling radar depends on the scattering of a transmitted signal by irregularities in the index of refraction of the air. The irregularities are caused by turbulent eddies created by the wind. By receiving the scattered signal and determining the Doppler frequency, the speed of the wind can be determined. Temperature data can also be obtained by measuring the velocity of propagation of an acoustic signal in the axis of the vertical radar beam. The hardware involved will be a receiver/modulator, a final amplifier/preamp, a digital control and data processor, and an antenna system. These items were developed at NOAA and are fabricated by Radian.

The system to be operated by Radian under this requested license will collect wind and virtual temperature profiles of the atmosphere above the location in par. 5b. The data collected will be used to support the Breton Aerometric Monitoring Program (BAMP) Phase II.

BAMP was designed in response to requirements of the Minerals Management Service (MMS). In its notice to leaseholders (No. 99-G03), the MMS required meteorological data, as well as certain air quality data to be collected so as to characterize the temporal patterns and frequency distribution of NO₂ and SO₂ concentrations in (and near) the Breton National Wildlife Area (BNWA). These observations will be used to provide data for model input and evaluation of pollutants on the BNWA.

Data from the profiler under this license will provide hourly profiles of low level wind between 100m and 5,000m and virtual temperatures between 100m and 2,500m.