

APPENDIX XIX

ROPOS

- Remotely Operated Platform for Ocean Science

DFO

- Department of Fisheries and Oceans Canada

CSSF

- Canadian Scientific Submersible Facility
- Newly incorporated not-for-profit company
 - President: Steve Scott
 - Sec-Treas: Kim Juniper
 - Director: Larry Mayer

ROPOS System

- Fiber-optic tethered ROV
- 5000 m capability: 3000 m with present cable but 5200 m cable planned for 1996
- 2 manipulators, excellent dexterity
- variety of specialized sampling tools, e.g.:
 - ... titanium water samplers
 - ... temperature probe
 - ... chemical scanner (NOAA/PMEL)
 - ... suction sampler
 - ... tube worm stainer
 - ... sample tray
- EM experiments (Nigel Edwards)
- 2 video cameras: SIT for continuous logging and 3CCD color Betacam for detail
- 7 simultaneous RS232 connections
- Deep water system with cage (>350 m):
 - ... vehicle 2700 kg
 - ... cage 4000 kg
 - ... winch & 4000 m cable 24,500 kg
 - 6 pilot/engineers for 24 hr day
- Shallow water system without cage (<350 m):
 - ... vehicle 1600 kg
 - ... winch & 500 m cable 2200 kg
 - ... 3 pilot/engineers for 8 hr day
- Ship requirements
 - ... A-frame: 14 t SWL, 6 m high x 3.7 m wide
 - ... winch deck area 3 x 4 m
 - ... cage deck area 4.5 x 5 m
 - ... consoles floor area 2.5 x 3 m

- ...Power for system: 460 VAC, 100 A, 60 Hz
- ...Power for winch: 460 VAC, 200 A, 60 Hz
- Problems we are working on:
 - ... heave compensation
 - ... navigation (Oceano/MORS, Datasonics, EdgeTech)

ROPOS SYSTEM RATES

\$CDN (\$US)

STANDBY/TRANSIT/WEATHER RATES

- CHARGED FROM THE TIME THE SYSTEM LEAVES THE SHOP UNTIL IT RETURNS TO THE SHOP

PER DAY \$2740(\$2000)

OPERATIONAL RATES

- CHARGED ON ANY DAY (OR PART THEREOF) WHEN THE SYSTEM IS AT OPERATING DEPTH. CHARGED INSTEAD OF STANDBY RATE.

3500 metre system with cage

PER DAY \$5480 (\$4000)

350 metre liveboating system (no cage)

PER DAY \$2740 (\$2000)

****INSURANCE EXTRA****

3500 metre system insurance is estimated per day at \$137 (\$100)

350 metre system insurance is estimated per day at \$89 (\$65)

PERSONNEL

IOS PERSONNEL PER DAY AWAY FROM SHOP	\$550 (\$400)
<p>\$68.5 (\$50) PER HOUR AFTER 12 HOURS</p>	

SHOP RATES

- ENGINEERING SERVICES, PER PERSON, PER DAY

ELECTRICAL/ELECTRONIC DESIGN AND FABRICATION	\$411 (\$300)
MECHANICAL DESIGN AND FABRICATION	\$411 (\$300)
SYSTEM MOBILISATION	\$411 (\$300)

Standby rates are negotiable depending upon the term of the contract and the number of days involved.

All travel expenses to be covered by the client. Any additional costs to be borne by the client.

Rates are subject to change without notice.