



OCEAN TECHNOLOGY SYSTEMS

OTS

"TECHNOLOGY IN DEPTH"



OCEAN TECHNOLOGY SYSTEMS



Underwater
Communications and
Full Face Mask
Diving.





Full Face Masks and U/W Comms

BACKGROUND ON FFM'S

- There are four basic reasons to dive a FFM:
- Environmental
- Physiological
- Underwater Communications
- The Experience





Full Face Masks and U/W Comms

ENVIRONMENTAL PROTECTION



- Any diving in water that may be detrimental to a diver's health if exposed. Combined with a proper dry suit, dry gloves, and an attached latex hood, a diver can be afforded a level of protection from cold or contaminated water.



Full Face Masks and U/W Comms

REDUNDANT GAS SUPPLIES



Two Stages of Redundancy

- Gas Switch/Manifold Block
- Redundant gas supply must have a second stage
- Provides for 100% back-up
- Allows for retention of FFM for most OOA situations



Full Face Masks and U/W Comms

PHYSIOLOGICAL PROTECTION



Traditional bite mouthpiece regulators offer little to no protection in the event a diver goes unconscious underwater. The Guardian full-face mask provides for a breathable airspace, secured to the diver's face, that will afford an opportunity for survival*.

Robert Silva sleeping during 48 hour 2 minutes world record saltwater SCUBA dive

***There are no guarantees in life.**



Full Face Masks and U/W Comms

COMMUNICATIONS



- A full-face mask advantage is having an oral/nasal pocket in which a microphone can be mounted. This allows the diver to be able to articulate into without the interference of a bite mouthpiece. The Guardian FFM has the push-to-talk (PTT) mounted to the right jaw of the mask.



Full Face Masks and U/W Comms

THE DIVING EXPERIENCE



- Many find that diving the Guardian to be the next step in the evolution of diving. The advantages are numerous.



Underwater Communications

Types of U/W Communications

- Hard-Wire
- Through-water (wireless)
- Diver Recall
- Slate or Rope Pulls
- Hand Signals





Underwater Communications

Hardwire Communications



- Tethered diving
- Two or Four wire mode
 - Full duplex comms
- Advantages
- Disadvantages





Underwater Communications

Wireless Communications



- Wireless
- Various ranges and powers
- Half-duplex
- VOX - PTT
- Advantages/
- Disadvantages

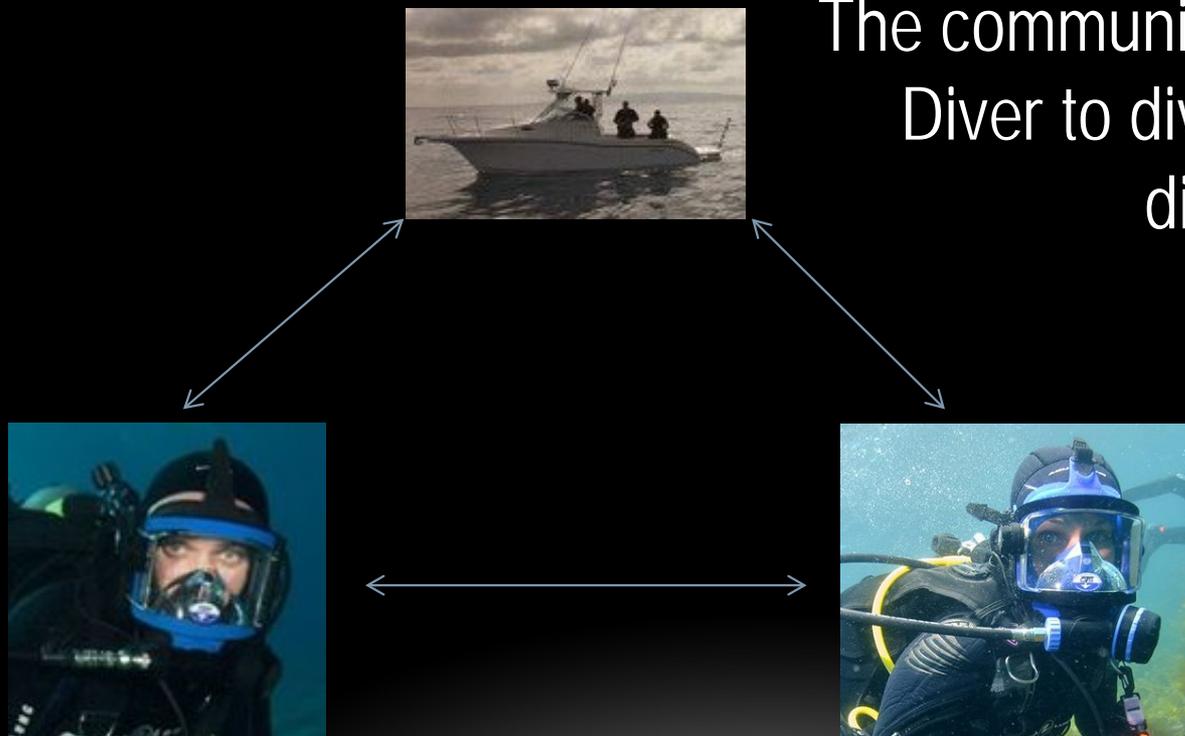
Compatible systems: Buddy Phones, SSB-2010, SSB-1001B, MAGNACOM Series and related surface stations (assuming they are on the same frequency and within range).





Underwater Communications

Wireless Communications



The communications triangle
Diver to diver to surface to
diver



Underwater Communications

Wireless Communications



Underwater Comms/Audio Recording to U/W Video

- Recorded directly to camera
- No syncing required
- No more silent movies



Underwater Communications

Diver Recall Systems



Basically an Underwater
Loud Speaker

Audible Signal
Anyone can hear



Full Face Masks and U/W Comms

Conclusion

Use of full face masks and underwater communications:

- Maximize the effectiveness of the diving operation
- Provides an essential safety factor
- Does require training/familiarization for effective use



QUESTIONS?

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