



# RVOC Meeting 2004



# Medical System Overview

- Medical Advisory Systems (MAS)
- MedAire, Inc.
- System Design and Operation
- Review Existing Services
- New Service offerings

# MAS

- **Began 1984**
- **Based in Owings, MD**
- **RMA with 24/7 physician access**
- **Pharmaceutical supply and replenishment**
- **Clinic Services**
- **Medical Locker Inspections/Certifications**

- **Established 1986**
- **ISO certification** 
- **186 employees in 6 countries**
  - MedAire, Inc., Tempe, Arizona USA
  - MedAire Ltd., Farnborough, UK
  - Global Doctor Clinics: China, Thailand, Indonesia
- **Publicly traded ASX:MDE** 





# MedAire

- **24/7 Physician Access**
- **Clients in Maritime, Aviation and International Travel Industries**
- **Equipment/Pharmaceutical Services**
- **Educational Services**
- **Travel Assistance**

# Global Footprint



# Remote Environments Currently Served

BRITISH AIRWAYS 

**BOMBARDIER**



**FedEx**

ANHEUSER  BUSCH

 **MOTOROLA**

**GM**

 **United Technologies**

 **MAERSK**

**Maritime**  
*1700+ Ships*

**Commercial Airlines**  
*74 Airlines Worldwide*  
*500 million passengers*

**Bus. & Gen. Aviation**  
*Senior execs./Int'l flights*  
*1800 Aircraft*

**Corporate Travelers / Expats**  
*250,000+ travelers/expats*

**Federal**  
*U.S. Air Force, Navy, Army*



  
**Georgia-Pacific**

 **Altria**

**TRIBUNE**



**U.S. AIR FORCE**



**ExxonMobil**

















# Statistics

- **Maritime Consults: 100/month**
- **UNOLS Consults: ~ 75-80 so far**
- **All MedAire Consults: ~22,000 this year**
- **Evacuations: 100-150/yr**
- **Clinic visits 4000-5000**



# One Mission

**Protecting health and safety of people working, traveling or living in remote environments.**

***Goal: Prevent the emergency from ever occurring***

**Preventive** —————→ **Reactive**

**Information**

**Resources**

**Remote Assistance**

**Direct Assist.**

# Information

Resources

Remote Assistance

Direct Assist.

- **Education**

- **Training worldwide**

- **Recognize and manage illness & injury in maritime environment**
    - **STCW approved**
    - **On-board or other locations**



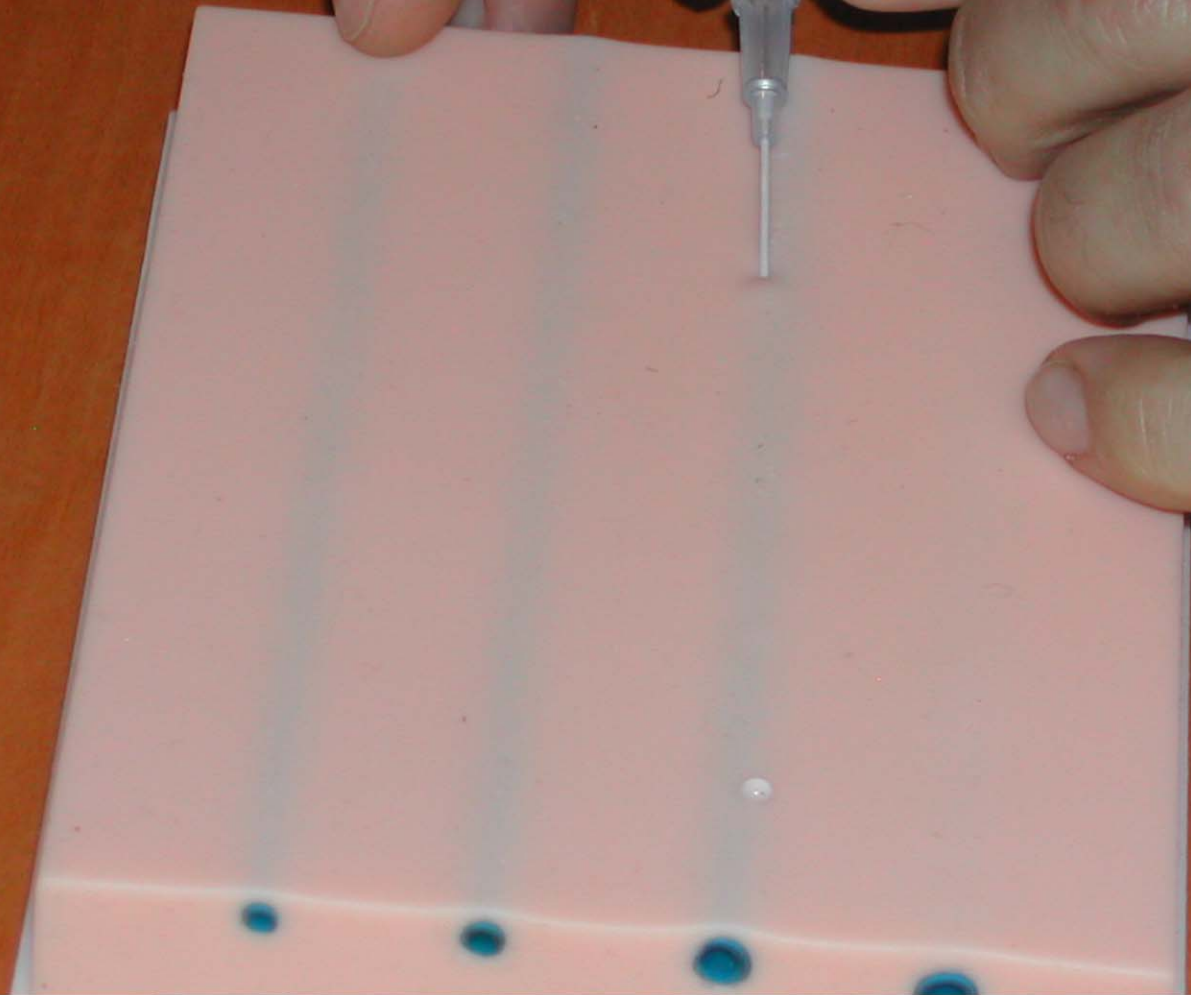








TRIADINE®  
Povidone Iodine  
PREP PAD  
CA No. 9288  
NCS 9288 (01)

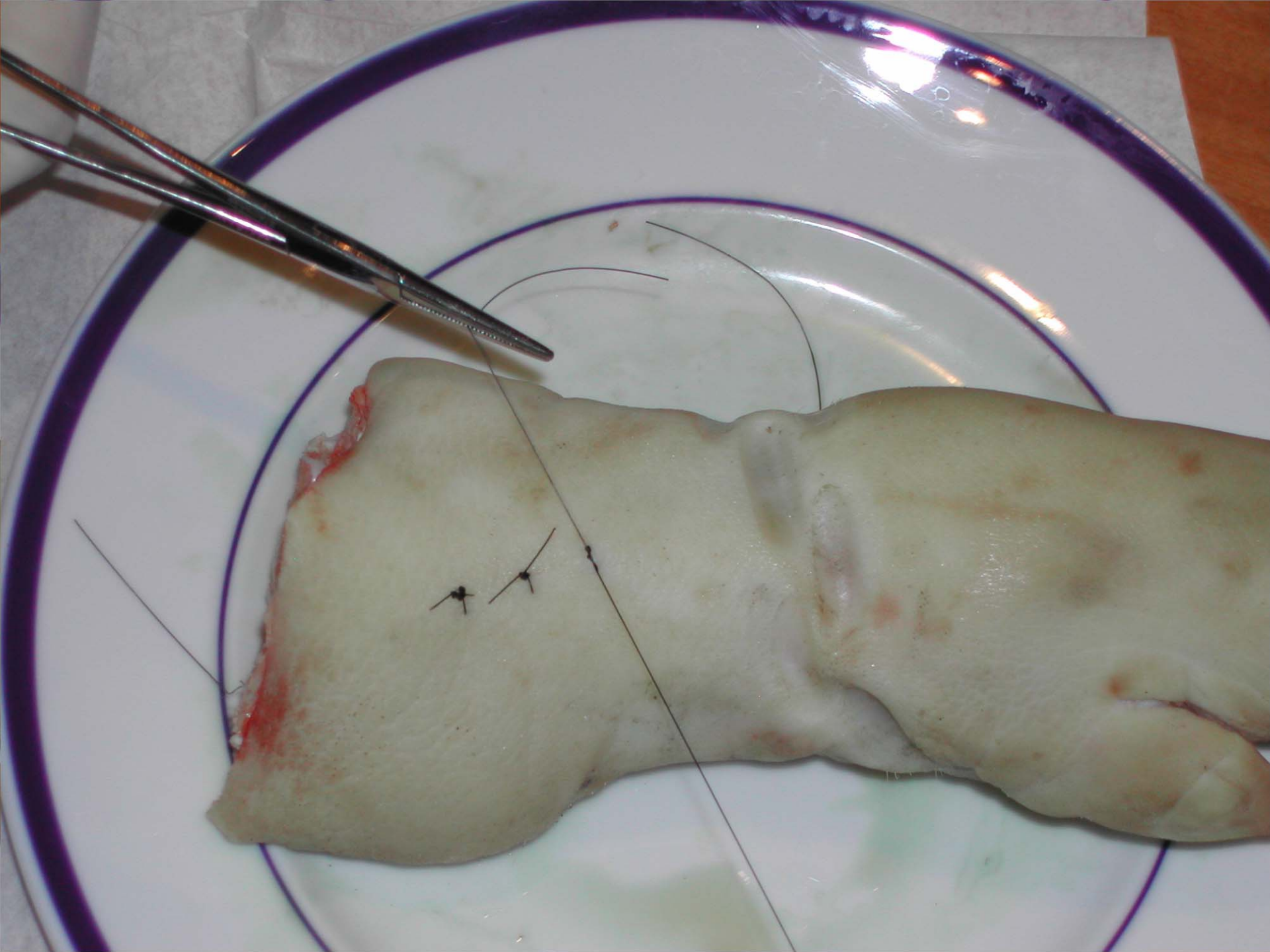














- **Pharmaceutical Supply**
  - Medical locker inspections
  - Inventory control services
- **Medical Kits**
  - Maritime-specific
- **Automated External Defibrillator (AED)**
- **Remote vital signs monitoring technology**
- **Portable oxygen solutions**



# Pharmaceutical Supplies

- **Antibiotics**
- **Analgesics**
- **Wound Management**
- **Cardiac Medications**
- **Respiratory Medications**
- **Antimalarials\*\***



# Bulk or Kit Configuration





# MedLink® MARITIME ADVANCED MEDICAL KIT

A SERVICE OF MEDAIRE, INC.

If there are any questions regarding the use of this kit, please call MedLink at (602) 239-3627

## RED

4 Gauze roll 2"	30 Gauze pad 4"x4"	10 Tongue depressor
4 Gauze roll 4"	2 Eye shield	20 Adhesive Knuckle bandage
2 Gauze roll 6"	6 Eye gauze pad	20 Adhesive Fingertip bandage
3 Kerlix gauze roll 4.5"	1 Trauma shear	50 Adhesive Bandage 1"x3"
4 Burn dressing 4"x16"	6 Non-adherent gauze pad 2"x3"	30 Antibiotic ointment packet
6 Bum dressing 2"x6"	1 Waterproof tape 1"	2 (pair) Non-latex exam glove
4 Petrolatum gauze 3"x9"	2 Tape 1"	
4 Abdominal gauze pad 5"x9"	2 Benzoin tincture swabs	
1 Bloodstopper multi-use gauze dressing	6 Cotton tip applicator	
	6 Tampon	

## BLACK

2 Triangular bandage	<b>SUTURES</b>
1 Elastic bandage 2"	1 4-0 .....absorbable
2 Elastic bandage 4"	1 3-0 .....non-absorbable
1 Elastic bandage 6"	1 4-0 .....non-absorbable
2 Malleable splint	1 5-0 .....non-absorbable
2 Malleable finger splint	3 Wound closure strips ½" (6 pack)
1 Tape 3"	3 Wound closure strips ¼" (10 pack)
1 PVP iodine solution	
1 Wound cleanser solution	1 Wound closure tray
2 Scrub brush (no detergent)	1 Skin stapler
3 Latex surgical glove medium-pair	1 Skin Staple remover
3 Latex surgical glove large-pair	1 Urinary catheter 14ff
2 Prep Razor	1 Scalpel #11
6 Lubricant jelly	1 Scalpel #15
1 Hydrogen Peroxide	4 Silver nitrate sticks
	1 (pair) Non-latex exam gloves

## TEAL

1 Hydrocortisone 1% cream
1 Caladryl lotion
1 Cold/cough liquid
2 Eye wash
1 Dental first aid kit
1 Meclizine tablets (100/bt)
1 Acid reducer tablets (60/bt)
2 Instant cold pack
4 Oral rehydration salts
20 Aspirin 325mg tablets
20 Antacid tablets
20 Acetaminophen 325mg
2 Motion sickness tablets (36/pk)
1 Glucose gel
20 Ibuprofen 200mg tablets
1 Preparation H cream
1 Silvadene cream 1%, 50g

## YELLOW

<b>IV CATHETERS</b>	<b>SYRINGES</b>	<b>HYPODERMIC NEEDLES</b>
1 12g	1 60cc with catheter tip	2 18g
4 18g	2 20cc	2 20g
4 20g	2 10cc	2 25g
1 Winged infusion (23g)	2 5cc	
	2 3cc	
	2 1cc	
1 IV start kit		20 Alcohol prep pads
2 IV solution set 10 drop macro drip		20 BZK cleansing towelettes
1 Sodium chloride 0.9% IV solution		5 (pair) Non-latex gloves
1 Sharps container-small		

## ORANGE — Prescription Medications

1 Albuterol 90mcg 17g inhaler	1 Diphenhydramine 50mg tablets (100/bt)
1 Lidocaine 2% viscous solution	1 Gentamicin 0.3% ophthalmic ointment
1 Ethyl Chloride topical anesthetic skin refrigerant	20 Ciprofloxacin 500mg tablets
1 Nitroglycerine 400mcg 12g lingual pumpray	1 Loperamide 2mg tablets (100/bt)
1 Glucagon 1mg-1unit	2 Lidocaine 1% 10mg/ml injection
1 Epinephrine 0.3mg auto-injector	1 Oxycodone HCl 5mg capsules (100/bt)
1 Epinephrine 0.15mg auto-injector	1 Diazepam 10mg tablets (100/bt)
1 Doxycycline 100mg tablets (50/bt)	1 Miconazole Nitrate 2% cream
1 Atenolol 25mg tablets (100/bt)	1 Cortisporin Otic solution 10ml

*These prescription drugs should not be administered without the advice of a physician.*

## PERIMETER

1 Cervical collar - adjustable
1 Inhaler Chamber

## LID POCKET

1 Hard surface disinfectant wipe
1 Pocket mask with Oxygen inlet
2 Biohazard bag
3 Thermometer - oral
1 Thermometer - hypothermia
1 Pen light with pupil gauge
1 Blood pressure cuff
1 Stethoscope-sprague style
1 (pair) Non-latex glove

**KIT SPECIFICATIONS:** Weight = 31 pounds with prescription medication, 23 pounds without prescription medication  
Height = 13 inches; Length = 17 inches; Width = 14 inches

# Equipment


















TEMPERATURE		
<b>1</b> Attach clean disposable cover	<b>2</b> Press and HOLD green button	
<b>3</b> Insert gently into ear	<b>4</b> Rock gently until chirping sound stops	<b>5</b> FIRST release button THEN remove from ear
		
PRESS <input type="button" value="OK"/> TO CLEAR		
		

Patient Data

First Name	Nigel	Surname	Smith
Title	Mr	Date of Birth	01 Oct 1956
Sex (M/F)	Male	Age	44

Patient Details

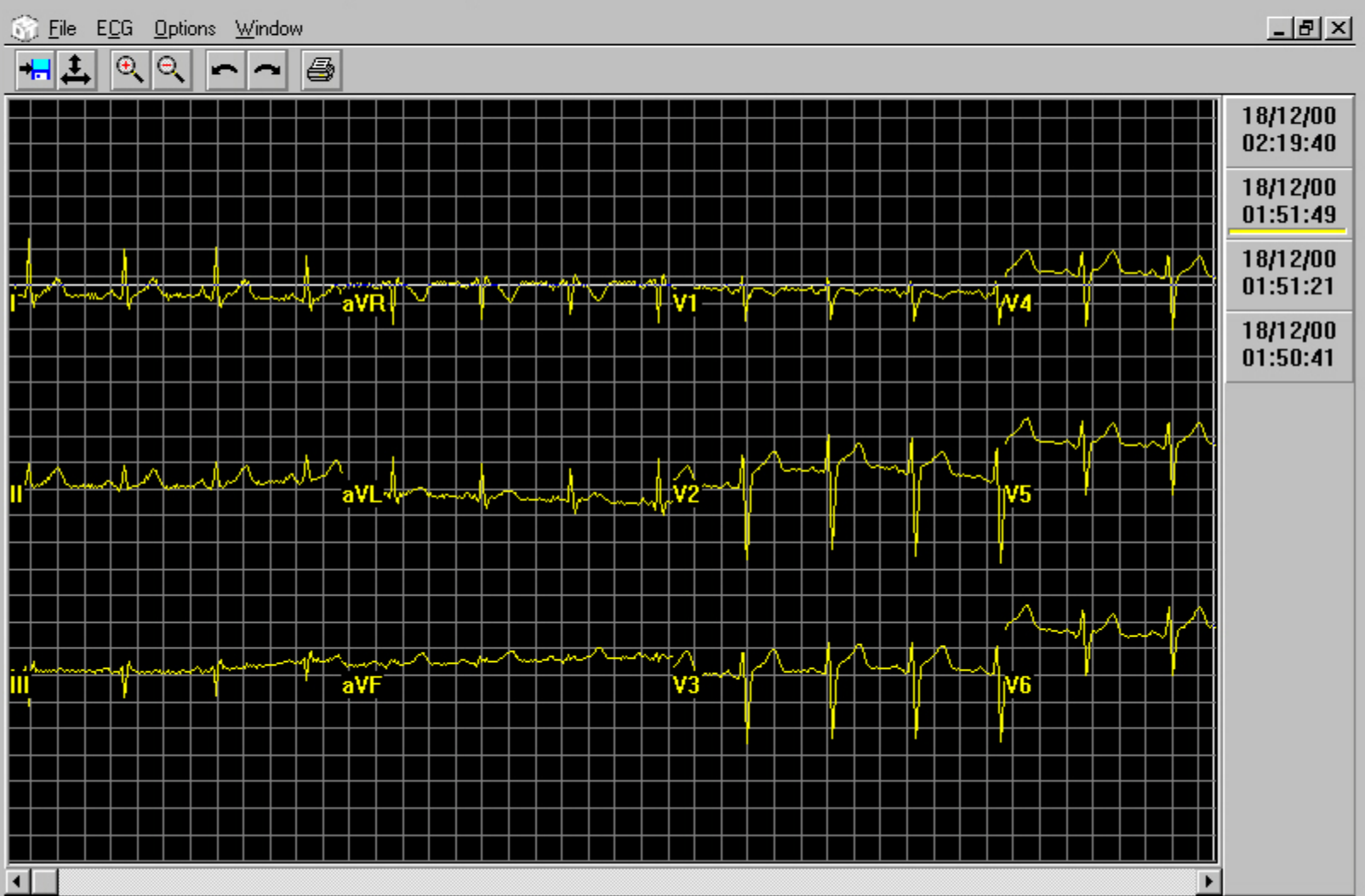
Incident Data

Location	Virgin Atlantic	Trip Details	VS 104
Start Time	18 Dec 2000 01:47:08		
Patient Incident No.	0000000	Device No.	00000103

Response Team

Incident Details

Patient Notes | Video Images | Chart Data | ECG Traces



18 Jan 2001 02:15:00

18 Dec 2000 01:47:08

Outstanding  
0 items to upload  
Upload Now

Voice Link?

Data Link?

No File Transfer

16:08 GMT

### Pulse Oximeter

**Pulse**

72 Bpm

Signal Strength

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**SpO<sub>2</sub>**

50% 75% 100%

95%

Blood Pressure at 16:06 GMT

**Systolic**

126 mmHg

**Diastolic**

75 mmHg

Temperature at 16:06 GMT

36.6°C

### Capnometer

**Respiration Rate**

25 Rpm

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**ETCO<sub>2</sub>**

0% 5% 10%

4.1%

Measuring

On Timer

Idle

Press to Stop

Patient Records

Patient Notes ... Chart ...

Video Images ... ECG ...

View History/Incidents

Video Resolution

Low  High

Current Database

Master Server

Configuration



Information

Resources

# Remote Assistance

Direct Assist.

*One Call, One Standard through Centralized Operations*

**24/7 Operations, Communications in 140+ languages**



- Board-certified emergency physicians & specialists
- Supported by Registered Nurses and Communication Specialists
- Real-time assistance, land-based medical resources, evacuations

# Contact Numbers

- **INMARSAT Direct MAS**
  - Voice  
410.257.9504/..05/..06
  - Fax 410.257.2704
- **TELEX**
  - 275486 (MAS INC)
  - 6491303 (MAS INC)
  - 6491304 (MAS INC)
  - 211074 (MAS INC)
- **Digital Images**
  - photos@mas1.com
- **Medical Supplies**
  - (P)480.333.3879
  - (F)623.581.9022
  - (E) pharms@mas1.com

**E-mail (for follow-up only)**  
**followup@mas1.com**



- **Global Doctor clinics**
  - Eight Asian locations
  - Western medicine
  - Telemedicine
  - Varied client base
    - Expatriates
    - Western travelers
    - Affluent local population
  - Partnerships
    - Local hospitals
    - Corporations





# Additional Services

- **ISM Services– MGRC Program**
- **Security Programs**
  - Advisory
  - SSAS (pending)
- **Travel Assistance**
  - Concierge
  - Travel Monitor







**QUESTIONS?**





# Recent Scenario: Hurricane Ivan



## Freeport, TX to Aratu, Brazil

- approx 200 miles southwest of the Dominican Republic, Caribbean Sea
- Cargo shifts and falls on two Russian crewmen
- #1) open fractured upper arm, severe blood loss & pain, loss of consciousness
- #2) closed deformity in left ankle, severe pain, conscious



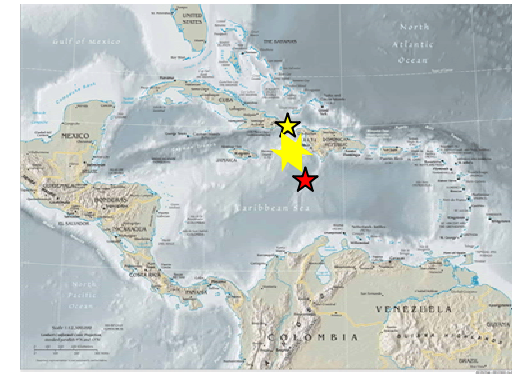
# Priority 1 – Stabilize the Patients

- Advice on medications
- Based on photos, advice on extremity manipulation
- 2-way Communications in Russian
- 15 hours on-going case management



# Priority #2 -- Evacuation

- Three scenarios studied with the shipping company
- **Elect:**
  - Activate the U.S. Coast Guard helicopter from San Juan, Puerto Rico
  - Meet the ship at sea at first light and extract the patients via hoist
  - Transfer to Santo Domingo, Dom Rep.
- **MedAire coordinates with U.S. Coast Guard**





# Evacuation Assets



- **U.S. Coast Guard Dolphin HH-65 helicopter with medical team lifts off from the 7th District Borinquen station in Puerto Rico**



- **A HU-25 Falcon was also dispatched to provide real-time communications between MedAire, the ship, the helicopter and the Coast Guard station**

# Outcome

- **Patient #1 -- MedAire arranges for:**
  - ambulance to meet helicopter at Santo Domingo airport
  - the admission of the patient and guarantee of medical expenses at the Hospiten Santo Domingo
  - On-going status communications from MedAire to shipping company and captain
  - Possible further air ambulance evacuation to Houston
  - MedAire continues medical monitoring
  - Patient discharged from hospital



# Outcome

- **Patient #2**
  - Not life threatening injuries, but needed transfer for proper medical attention
  - Boats unable to leave Santo Domingo due to heavy seas
  - MedAire identifies a second port - Caucedo
  - MedAire arranges another ambulance from Santo Domingo to go to Caucedo and meet the rescue boat with the second patient
  - Patient is admitted to Hospiten Santo Domingo