U.A.E.

BALAZS
1998
1999

UNITED ARAB EMIRATES

Capital: Abu Dhabi
Language: Arabic, English
Money: UAE Dirham
Area: 83,657 km²
Population: 900,000
Air Seychelles destination: Dubai

1-808-395-6409 (COLLECT)
GEORGE BALAZS

AL-GHAIS, Dr. Saif
Environment Research and Wildlife Development Agency
P.O. Box 45553
Abu Dhabi

United Arab Emirates
(971-2) 319-317
Fax: (971-2) 349-154
~~Abu Dhabi U. A. E.~~

Cell - 0506513513 (DIAL IN UAE)
Page 1933133
(971) (2) 414-131
FAX (971) 2 349 154
Phone (971) 2 319 317

ERWDA
BOX 45553
ABU DHABI
UAE

my phone numbers are:

Home	00971-2-265668
Office	00971-2-414441
Mobile	00971-50-6513513

"Salam"

Saif Al-Ghais

The SUPREME RULER
HIS HIGHNESS SHEIKH ZAYED BIN SULTAN AL NAHYAN

8- MAY 99
UAE 3 - page 50

Environmental Research and Wildlife Development Agency
10 th Floor, Chamber of Commerce Tower
Corniche Road
Abu Dhabi, U.A.E.

971-2-319317

http://ERWDA.GOV.AE
EMAIL - ERWDA@EMIRATES.NET.AE

Empty Pages = 1.0 = 50-54, 92, 96-104, 1A-2
0.5 = 4, 21, 27, 37, 40, 49, 96-104

NOAA 11 = H
NOAA 12 = D
NOAA 14 = J
NOAA 15 = K

5/98 Launch

Program 1440

ARC 9/3 (5 MONTHS)

ID CODE	SEC. RR	SYS. NO.	Battery S/N	RAK Applied
10213	39	420079A	4484	5/4/98 99 com ccc Females
10214 (8 MONTHS) 5/4/98 → 1/6/99	40	420085A	4482	
10511	41	420087A	Hawkshill-Guernsey 4483	5/12/99
10512	42	420096A	Hawkshill-Guernsey 4487	5/11/99

Date: Tue, 18 Aug 1998 17:48:26 GMT
From: useroffice@argosinc.com
To: GBALAZS@honlab.nmfs.hawaii.edu, useroffice@postoffice.argosinc.com
Subject: Re: Program Profiles - 1092 & 9092

Hi George,

Enclosed is a list of the IDs assigned to Programs 1092 and 9092. I've also enclosed a legend which explains each item. In Pgm 1092 the IDs which have 2 sensors are set up as follows: ALP, 2 sensors, 16 bit each, A1 processing. The IDs which have 32 sensors are set up as follows: ALP, 32 sensors, 8 bits each, A1 processing.

ST14 The IDs assigned to Pgm 9092 are set up as follows: ALP, 6 sensors, 8, 16, 16, 16, 02, 06 bits each, A1 processing.

Hope this helps you out.

Will

2

QUARNAYAN

10512 Date : 11.06.98 12:26:35 LC : 0 IQ : 60
Lat1 : 24.926N Lon1 : 52.856E
167 00 00 00

10512 Date : 11.06.98 01:12:06 LC : 0 IQ : 60
Lat1 : 24.923N Lon1 : 52.863E
170 00 00 00

Recommendations 5/99
1) Oil Platform Scuba Census
2)

Need 5/8/99 Grades TR P, 5, 2
1) 2 week School Aug 99
2) Realestate adds
3) IT TAG Literature
4) Telonics email (BRENDA)
5) EGG INCUBATION Cit.
6) Plot Remaining 5-98 10513 10514
7) hawksbill bibliography TO DAS (VIA SAIF)
8) See p.52 introduce Marlon TO Dutton
9) hawk tissue

Environmental Research and Wildlife Development Agency

Dr. SAIF M. AL-GHAIS
Secretary General
Faculty Member UAE University

P.O. Box 45553
Abu Dhabi
United Arab Emirates

Tel. : 02 319317
Fax : 02 349154
e-mail: alghais@emirates.net.ae

QUARNAYAN

10511 Date : 11.06.98 03:50:11 LC : 1 IQ : 60
Lat1 : 24.920N Lon1 : 52.856E
181 00 00 00

PROTOCOL
DINOFLAGELLATE PROCESSING

Date: Wed, 10 Jun 1998 09:39:36 -1000 (HST)
From: Shawn Murakawa <smurakaw@honlab.nmfs.hawaii.edu>
To: "George H. Balazs" <gbalazs@honlab.nmfs.hawaii.edu>
Subject: Re: Dr. Landsberg

1) Collect around 30g algae (not too much salt water) in plastic bag
2) Pour water from ~~bag into~~ graduated cylinder
3) Add water to make 100ml
4) Take algae out and weigh 30g of algae
5) Pour 100ml water + 30g algae back into bag
6) Seal then shake bag 30 times
7) Decant 50ml of water into larger labeled plastic bottle then add 10ml of 10% buffered formalin, swirl
8) When ready, swirl bottle 15 times
9) Pipet ~~10-12ml~~ (couple ml from top of vial) water/formalin mixture INTO scintillation vials
10) Put parafilm on top of scintillation vials before sealing

Rinse measuring containers between each sample with salt water and be sure to change pipets with each sample. If you have any questions pl feel free to email her at home.

need 4 TAG chapter

Camera Case!

Photos of Skulls - JAWS - Side - Top

Steve BRITSCH home phone 713570 SEND copy of FP work shop Report

- WAY To compute Temp. etc. email

TOM Bailey - Herbert has "IN Press" JWD on Diagnostic test. ANATOMY MAPS

need Smoke detector - Fedex Sait + one for my gear.

Srilanka - ERWDA - Man - need to send him 2/97 print photos - NAME = _____

need photos sent

Shabir ZAINUdeen, Librarian

THANK YOU FOR CHOOSING UNITED AIRLINES
CUSTOMER IDENTIFICATION IS REQUIRED AT CHECK-IN

BALAZS/GEORGE MR — MILEAGE PLUS: 00095220967 — PAGE:01

8MAY SA	UNITED HONOLULU LON / HEATHRO	FLIGHT: 934 CLASS: H SEAT: 10H 18G DEPART: 700A ARRIVE: 1240P 9MAY		
9MAY SU	UNITED LON / HEATHRO DUBAI	FLIGHT: 4300 CLASS: H DEPART: 145P VIA: EMIRATES AIRLINES ARRIVE: 1130P		
16MAY SU	UNITED DUBAI LON / HEATHRO	FLIGHT: 4301 CLASS: H DEPART: 745A VIA: EMIRATES AIRLINES ARRIVE: 1215P		

TICKET: 016 2136289991-92
FARE: USD2489.40

BALAZS/GEORGE MR — MILEAGE PLUS: 00095220967 — PAGE:02

16MAY SU	UNITED LON / HEATHRO SAN FRANCISCO	FLIGHT: 931 CLASS: H SEAT: 19H DEPART: 245P ARRIVE: 540P	
16MAY SU	UNITED SAN FRANCISCO HONOLULU	FLIGHT: 63 CLASS: H SEAT: 12B DEPART: 715P ARRIVE: 926P	

UAE II

DC 10

5

APRIL 98 Depart UA Fl. 934 8AM TO LA Boeing UA934 620PM Arrive III
TUESDAY Arrive LA 409pm (3hours difference),
4/29/98 London ~ 1230pm: Depart Emirates EK02 145pm III
Wednesday FOR DUBAI. 1150pm 4/29/98 Arrive - Met by Walter Pearson TO
Gulf Beach Hotel - Sleep 3AM - 8AM
Breakfast a Hotel. TO Military Airport.

ALBATEEN AIR BASE
French Helicopter 5 Saif me, Tom, Steve, Walter 2 pilots - 1 crew
4/30/98 200lbs over 1:30 → 230pm TO Sat on ground for 15 min
Thursday 90KNTS TO "BORN 200lbs Fuel."
"TWO HORNS" Island
GARNAYN 24°55'39", E52 51'
(from Carlos Report)

My hand held GPS 12XL GARMIN (AT GUEST HOUSE)
N 24° 55.645', E052° 51.132'

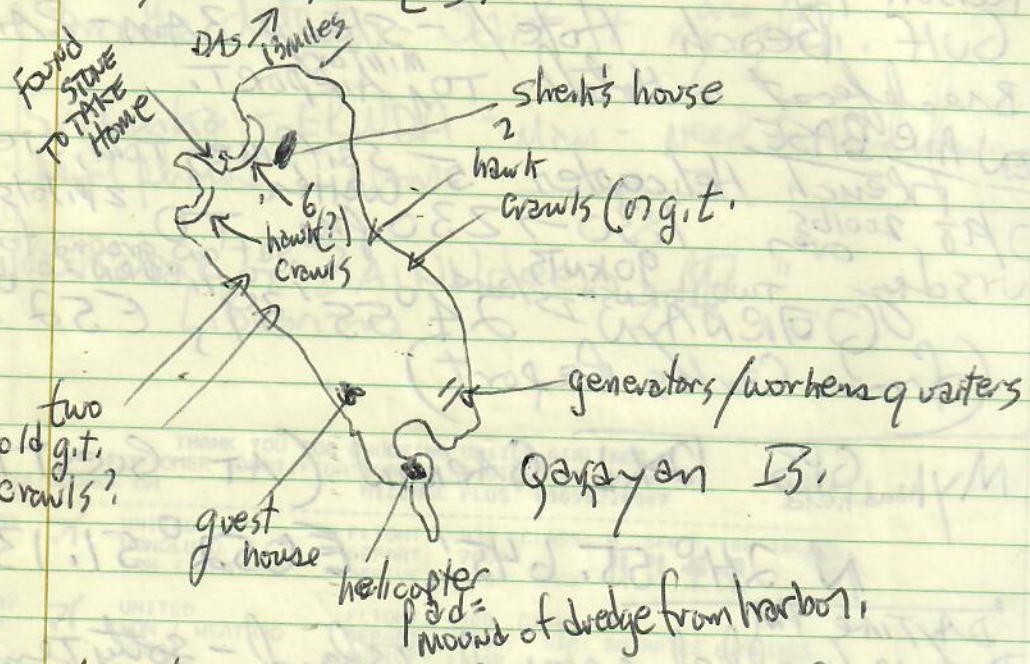
DAYTIME PM
Drove/walked around Island - Sooty Terns, larger Terns on eggs, some chicks. Some Cormorants. *House of Sheik (Foreign Affairs) Island GARNAYN
~ 17 workmen, ARAB chief - hasn't left Island in 1.5 years.
Dredged harbor, heavy trucks. 125' Radio tower.
4/30/98 Conducted survey for nesting turtles throughout night. 12 midnight fire from air conditioner - Burning plastic smoke.
Home Fire!

* SHEIKH - HAMDAN BIN ZAYED AL NAHYAN

6

QARNAYAN Island

May 1, 98 walked 3x around island checking beaches
Friday for nesting turtles.
MAGNET OFF ID 10213 130AM
magnet back ON ~ 11 AM. UAE TIME.
NO TURTLES.



13 miles Lights/flames of DAS oil facility prominent at night. 13 miles away.

May 1, 98 up ~ 11 AM.
walked around island w/walter ~ 12PM
Friday Photo by "Fantasy Island" sign.
Found 2 more pit sites right along road

5/1/98 Read Carlos' MS thesis QARAYAN IS. 7

Friday THE UNIVERSITY OF HULL
"Biological and Ecological Aspects of Sea Turtles in the United Arab Emirates"
being a dissertation submitted in partial fulfilment of the requirements for the degree of Masters of Science
Department of Applied Biology
Global Biodiversity: Monitoring and Conservation
by Carlos Roberto Hasbun, B.Sc.
Sept 97

not seen Saif to issue

Need EXACT Description of twist Tag.

Photos of Saif on Couch watching TV:
Notes - inside photo girl w/turtle.
Jugular?

Need - name not on paper no mention in thesis my importance well

Jane Samour pers. comm. RWDA - "Volvus" If turtle turned over, must be upright & same direction turn same way (?)!

0.49% roots Rhizomes / 89.6% shoots: stomach contents

5/1/98 Started surveys to locate nesting turtles - 8PM after dinner 3 hrs - 2 teams (1) Tom Bailey & Steve Beitsch (2) Me & Walter Pearson. Started right after dinner. Rice w/curry + several kinds of fish. Caught by 2-island based fishermen - Sheik in ABUDAHBI.
Oil Co. = ADNOC = ABU DAHBI National Oil Company
This night we used 4X4 Jeep-like wagon to go around Island. Walter & I at ~11-12 pm 5/2
Fresh again at 3PM when Tom & Steve didn't wake up. NO Moon most of Night.
5/2/98 Again - tide rising ~ after midnight or so. pit 10213
Saturday Slept 3:30AM TO 8AM. 1:30 AM MAGNET off AGAIN - ON about 9AM
FATHER'S BIRTHDAY
Helicopter arrived ~ 10:15am (with A/C Repair man). Photos in Group. Depart ~ 11AM.
QARNAYAN IS. Photos (slide) at take-off. TO p.41

FEB. 1997 UAE I

Depart Honolulu 2/12/97 wednesday ERWDA UNITED ARAB EMIRATES
UA 184 1025pm to SF arrived 505am
TO LONDON UA; EMIRATES TO DUBAI ARRIVE 0020 2/15 SA
Met by Saif, Ali (an army major) + I. SAIF and I drove
to ABU DHABI 1.5 hours. Slept 0100 0930 2/15 SATURDA
3 nights Worked on Tagging Chapter, Worked to A.D. 2/15 & 2/16 Sunda
HOTEL = Khalidia PALACE! Met with Saif in his offi
Depart MONDAY w/ SAIF for RAS AL K
2/17/97 3PM
SISSORS, Alcohol, salt, small bags, MACK PEN, leather punch. DUTTON - ARABIAN GULF BOWEN
PAGER = 919 33133
DR. SAIF = 319-317 office ABU DHABI
cellular = 05065 3513
Home = 354033
Khalidia Palace hotel / P.O. BOX 40105 ABU DHABI ARABIC sahajh al-tham
(971) 266 2470 Sabajh - annoor
2/16/97 SHEIK DIED (Cousin of President) =
Needs - UAE Reg. Meet / MORE TIME BETWEEN 1-2nd SCALE? 17 ASBUN 1989 - TORTOGUERO - TAG
- Punch for DNA, SALT Packets / EMAIL NBT RE: LOADING APPLICATION
Send - WID Glossy Report TO SAIF + Real estate literature
- More ARABIC Versions: Global strategy w/ CARLOS HASBUN
- Person to work UAE turtles
- Call MAD BAS / MARC RICE
WRITE BOX
? - Notice of AVAILABILITY ARABIC Global STRATEGY - MTN OBSERVED FISHING Resource DOC
ADDRESS - DATA SHEET / DNA KIT
- order tags Send Samples TO SAIF
- First Sea Turtle Tagged UAE ?
2/17 AFTERNOON BIN MAJID BEACH HOTEL TEL. 352233 R.
2/18 TUES (971) 2 (808) 885-8204 MARC RICE
Visited Fish market PM photos "PAGONG" FILIPINO Magcog - Sea turtle

- CTURTLE note about sat. tag deployments
- Need - ARABIC Translation of MTN UAE
- Saif's idea - supply sat. trans. technology to other countries (PAKISTAN ?)
- Doug - request Full literature to Saif + % cost BASIS
  - 3rd Quarter - wrong time of year
  - Saudi Competitive not being informed.
  - What other Gulf States, CMS?
- "Special Relationship" with ERWDA / HL

FEB. 1997

2/18/97 R.A.K, BIN MAJID Hotel, Ras Al K — First Sense observed
TUES. AM. - Watched Fishermen bring in net - Many Photos. Police bought fish - Sarf Cuttlefish, No turtles, saw ships Home.
UAE Drove around RAK, PM: To mountains edge.
3 Kinds of people. Bedouin, City/Coastal, Mountain.
went to RAK Association/Museum - Pearl Diving
Visited Fiberglass factory RAK. Making sewer pipes for ADU DHABI. Building a boat for Sif.
We went to Shopping Place - "Food Court" outside. Booths change regularly. Had Tea w/ Sarf's friends Ali and Saif (a Bedouin). went to his house under construction to get camping gear.
2/19/97 Wednesday ~930AM went to point where Coast Guard building has helicopter. Took red inflatable w/ 25HP along coastline toward hotel.
(continued p. 98)

104 Need TAG No: of first Molokai turtle 6414 / 6415 BB A4329 of 3-82 PALMAU G — 9523 10/16/85 - Photos No Score PALMAU — EP CUBA — F

UAE From Fred Lanway NARC 2/22/97 Environmental Research & Wildlife Agency Development
[satellite transmitters used on birds by NARC - Capable of voltage readout]

Need MARINE APPLICATION?

Microwave Telemetry Inc
10280 Old Columbia Road
Suite 260
Columbia
MD 21046
Tel (410) 290 8672 Fax: (410) 290-8847
Dr. Paul Howey.

EAWDA
Mr. Mohammed Al Bowardi. - Managing Director

5/98
Derek indicated photocell for HOBARA tracking - 11 months Round trip UAE → nearly to China (Mongolia) → UAE

10

ALL "HIMB" INCONEL TAGS SIZE 681

INSCRIBED

2/19 observed 11:30-1230 1st Seine OBSERVED NO TURTLES 97

2nd Seine = 1230-1300hrs observed Photos → 3 green Turtles

1-D RFL. 2-D LFL

3rd Seine ~ 145-245pm TAGGED BELOW → 2 Lost (1 green released (1 maturing ♂))

Estimated to be Immature female

Plastron Length 61.5 cm

TAIL < Total 16.5 cm, Cloaca 10.5 cm >

curved carapace length CCL 81.5 cm

(1) CCW 1d th 72.5 cm

4th Seine observed in front of Hotel. Lots of Akule. UNKNOWN if turtles present

3D LFL
4D RFL

Photos + Close up 2 Leeches in Cloaca

(2) P 71.5 cm

T 44.5 cm
C 33.5 cm > Adult Male

CCL 91.0
CW ~ 85.0

DIDN'T WORK RIGHT NOT USED TAG 5D

(3) Estimated to be an immature female

Plastron 61.5

CCL - 79.5
CW - 71.0

Photos

6D LFL
7D RFL

TAIL NOT taken Measurement

98 JAE

2/19/97 Glassy calm - shallow (2-3m?) Saw a green
Wednesday turtle surface. Slow, but didnt stay up
long. Didnt splash or spook by seeing us.
No sea grass seen on surface. Went ashore
at barrier island off shallow lagoon area. Saif
saw resting here - starts in March(?).
Decomposing adult loggerhead washed up. Photo. No
sign of why dead. Meat not taken. Saif says
people take muscle of front flippers. Continued
along coastline. Saw two boats, large outboards,
pulling net over so slowly toward shore. Small diameter
twine - mesh ~2cm or 2.5cm. Went ashore and
watched. Last (long) portion is pulled in by hand.
3 TAGGED greens (see p. 97). First seine watched - no turtles.
Sample from small patches of sea grass seen
in the TANGLES. Watched a 3rd (by myself) - helped pull it in.
Two greens. Watched a fourth (in front of hotel).
400pm Back to the room to shower for compound.
TO CAMPSITE ~8PM. Grilled fish & Rice dinner. Carlos arrived
Cold + lots of dew fell. They went out w/ Saif's net at
~ Midnight. Pulled net to shore with vehicle. no fish, no
turtles. ~8 cm mesh
2/20/97 9AM went out in fiberglass boat & inflatable. Saw
Thursday fishermen - to observed, as on following pages.

need - Hook, Longlining catch turtles in Gulf? Oil platforms attract?
Ask Jeff Miller about tag recoveries - person also.
- Sea Grass imaging need - Sandra Litt. search
- Saif MTSGMTN subscription
- Marion - establish contact about turtle genetics w/ Dutton
- Date Charles / other business ideas,
- Saif - Autor a book - talk; others transcribed compose.

Still Need

Still AT NAPC

Videos JAE 1115h Barrier Island Fishing Seine net 98

2/20/97 500M nets ~ 2cm Mesh

Thursday (5 TURTLES) NO PIT

1DB

20 VB

(1) PLASTRON — 51cm

TAIL 11.5 9.0cm

CCL - 64.5 Deep cut-Notches to left margin of Carapace

CW 55.5

Photography not right

8-D RFL

10-D LFL

9D TAG Bad

(2) PLASTRON - 47.0cm 2VB

TAIL - 10.5, 7.0,

CCL-60 Hump Deformity to centrals

CW 53.5

11-D RFL

12-D LFL

(3) PL - 63.5 5VBB

TAIL 14.5, 10

CCL - 79.0

CW - 72.0

17-D RFL

18-D LFL

13-D TO 16D 19D Not used - BAD or & practice

(4) Plastron - 49

Tail 9, 5.5 CCL 62

CW 55

~~19-D RFL~~ Destroyed

20-D RFL

21-D LFL

continued next page

UAE Videoed 2nd Seine observed 6 Turtles

Thursday 20/02/97

from previous page

(5) Plastron-31.5
Tail 4,3
CCL 37 CW 35.5
22-D RFL
23-D LFL.

(1) 2nd Seine observed
PL- 79.0
TAIL 26, 17.5
CCL- 102
CW- 84
24-D LFL
29-D RFL

(2) ♂ 73.5 PL. TAIL 41 29
CCL- 92.0
CW 80 ♂
31-D LFL
32-D RFL
4VB

(3) 61 PLASTRON
TAIL 13.5, 10
76.5 CCL, CW 66.5
33-D RFL
34-D LFL

(4) PLASTRON 64.5 5VB
TAIL- 17, 13 35-D LFL
CCL- 80.5 36-D RFL
CW 73.5 Leeches on MARGINS of both eyes

(5) 56 PLASTRON
13.0, 8.5 TAIL
67 CCL 37-D LFL
58.5 CW 38-D RFL
Leech eggs

(6) 56.5 PLASTRON
12.5, 9 39-D LFL
70.5 CCL 40-D RFL
68 CW

ENDED UP pulling to FLAT IN APPLICATOR when loading.

P.A.K. Returned to Hotel from Camping. ~ 4 pm. 3 Seines set being pulled in in front of hotel, observed one. ~ 55cm turtle only one seen, although others may have been released before I arrived. 3rd seine observed 2/20 moving into sea

2/21/97 FRIDAY 4X4 stuck in tide. Watched not come in - Adult green female. Russian tourists sat on and photographed. TAXI in PM to Kuwaiti Street Downtown RAK. walked around.

2/97 Need Video Copy?

"Fume Silica" or Flour - Mix with Resi
AERIAL Surveys for fraging, NOAA IMAGE - Sea Grass
- Sea Grass NRC Florida Sat. imaging FROM BAS = MIKE DURAI
Limpus - Copeia example of citing TM's.
Slides to Saif Video to me
UAE - MAPS (Mapping Center) (1440) Derek Glidden "ERWDA
" " Did Aerial for water in QATAR
ARC View " ARGOS Program # Dr. Frederic LAUNAY
- "ARC INFO" GIS NARC Marion - genetics
- Access software
their own software written to input Argos data
voltage of trans, battery
Software " Transposes ARGOS to more usable form.
ELSA Argos data sells it.
LUS just recently offered in UAE area

- Pesticide
- Water table

2/21 Friday Drove me to NARC
Lower right middle of desert near Sweihan
Slept overnight at NARC and Bowled
SAW Palace. Tomato Tower!

2/21 Friday

102 NARC overnight 2/21 Friday at NARC near Sweihan
UAE National Avian Research Center Gave me brown T-shirt (near Al Ain) Beautiful Facility
2/22/97 Abdul Aziz Al Mida - NARC PK Mam
Saturday Spent the morning talking to Fred Launay & Derek Glidden. Also Carlos Hasbun - here for 4-5 months on contract. Saif went to UAW to teach at ~930am. Driver (arab) drove me to Abu Dhabi at 300PM. Airline tickets to travel agency to reconfirm. Checked back in to Khalidia Palace Hotel.
2/23/97 Sunday Met w/ Saif at ~ Noon, photos in his office. Agreed 1) He will write letter to Laura thanking 2) I will send congratulations letter to him 3) I will compose congratulations letter from NECA. Visited "Souk" - Central ABU DABI - fish, vegetables, meat markets all inside. "No photos allowed".
2:30pm Saif's Pakistani driver took me to DUBAI "The Apporter Hotel" (255dhm night). Walked to huge mall of "CITY CENTER".
2/24/97 Sunday Depart EMIRATES 001 Air ~ 830am to London (4 hours behind) - flew over Iran and Budapest. Arrive London 1:22pm, Depart UA 3Pm FL931 for San Francisco (8 hours behind) - 11 hour flight.
Arrive Honolulu Late - ~ 1AM 2/25/97 Monday

should have been 55°E

U.A.E. 24°N, ~~64°~~ E

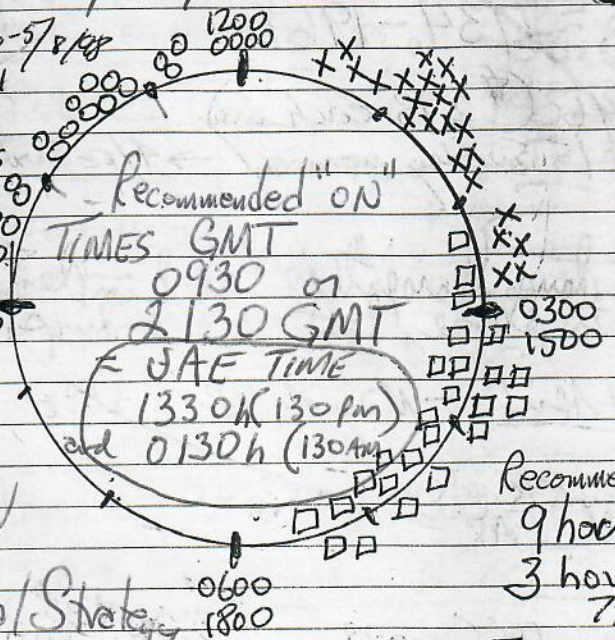
GMT

EARLY MAY 1998

29

Good ⊕ = ~42°

Needs for UAE 4/28-5/8/98
- Separate Book - UH
- Elastomer, 5 cloth kits
- Brushes, sandpaper, cups
- Pigment
- cloth to coil staple
- Cameras/film
- Kevlar
- L sleeve shirt
- Towels for head
- Shade
- brushes
- blue ice to cool resin
- Arabic & English Global Strategy



Recommend - 9 hours ON, = 3 hours off 75%

ID CODES = 10213, 10214, 10511, 10512

PROGRAM 01440

NOAA 12 = X
NOAA 14 = O
NOAA 11 = □

JUNE 97

Date: Sat, 21 Jun 1997 23:41:44 +0400
From: "Dr. Saif M. Al-Ghais" <alghais@emirates.net.ae>
To: gbalazs@honlab.nmfs.hawaii.edu
Subject: UAE Turtles

Dear, George

Many thanks for your letters and informations (sientific papers), As you have seen me I am still busy with ERWDA's work, therfore, please accept my apologies for not responding to your letters or E-mails. The turtle project is going very well. We have maneged to tag about 100 turtles mainly green with only two haksbill in Ras Al-Khaimah untill the end of May. Last week I visited some of the Islans (Qurnnain, Butinah and Dainh) in western area from 14 -17 June, we did (with Mr.Carlos +2) find many tracks of haksbil mainly and green turtles, but most of the traks were old. Fortuatently, and at 9 AM we maneged to see some haksbill turtle hatchling wile some have aready hatched at night. Off about 99 eggs, 47 rotten eggs with no embryo, 17 dead hatchlings, 25 live hatchlings and atotal of 14 live hatchlings were rescued by us. the nest was about 9m from the HHT. My vist to Hawaii is not finalised yet do to my work commitment but I wil inform. This tills me that next year your visit should be in the second half of March so we can visit those Island and I will show you how to put the Qittra on your head if do not visit hawaii this year.

In the 26 of this month I shall be visiting Australia untill July 14, then in 19 July I may or may not go to Seattle to give atalk in Sguim Marine Lab/Battelle.

Salam' and best regaredto you and to Jif, please inform him that I have ben asked by one of the Shaik in my emirates to establish an artificiak reef in the area where you have seen the turtes which I thought my be good to protect the turtle from the fishermen beach seining.

Saif Al-Ghais

gittra

16

This should have been 35°E

JAN-27-1998 15:06 TELONICS, INC P.02

Telonics Satellite Predictor V3.13 Copyright (C) Silicon Solutions, Inc.
observer(s): BALAZ5 VAE object(s): all

BALAZ5 UNITED ARAB EMIRATES 24 NORTH / 64 EAST

MAY 1998

date	object	beacon	rise	tca	set	el	geo	orbit
Fri 01May98	NOAA-14	1707.0000	00:00:44	00:06:33	00:12	11	d-w	17178
Fri 01May98	NOAA-12	1698.0000	01:10:30	01:17:31	01:24	26	d-e	36155
Fri 01May98	NOAA-10	1698.0000	01:14:10	01:21:29	01:28	39	d-w	60385
Fri 01May98	NOAA-12	1698.0000	02:50:22	02:57:20	03:04	25	d-w	36156
Fri 01May98	NOAA-11	1707.0000	03:53:08	04:00:43	04:08	46	d-e	49490
Fri 01May98	NOAA-11	1707.0000	05:34:29	05:40:53	05:47	16	d-w	49491
Fri 01May98	NOAA-14	1707.0000	08:02:00	08:04:15	08:06	1	a-e	17183
Fri 01May98	NOAA-14	1707.0000	09:36:07	09:43:48	09:51	50	a-e	17183
Fri 01May98	NOAA-10	1698.0000	10:47:46	10:53:21	10:58	10	a-e	60391
Fri 01May98	NOAA-14	1707.0000	11:18:19	11:24:37	11:30	14	a-w	17184
Fri 01May98	NOAA-12	1698.0000	12:23:36	12:30:03	12:36	18	a-e	36162
Fri 01May98	NOAA-10	1698.0000	12:25:01	12:32:35	12:40	64	a-w	60391
Fri 01May98	NOAA-12	1698.0000	14:02:21	14:09:41	14:17	38	a-w	36162
Fri 01May98	NOAA-10	1698.0000	14:10:19	14:12:54	14:15	2	a-w	60393
Fri 01May98	NOAA-11	1707.0000	15:10:04	15:17:29	15:24	36	a-e	49497
Fri 01May98	NOAA-11	1707.0000	16:51:12	16:58:01	17:04	20	a-w	49497
Fri 01May98	NOAA-14	1707.0000	22:07:40	22:15:26	22:23	49	d-e	17191
Fri 01May98	NOAA-10	1698.0000	23:12:12	23:17:15	23:22	7	d-e	60398
Fri 01May98	NOAA-14	1707.0000	23:49:18	23:55:40	00:02	15	d-w	17192
Fri 01May98 passes = 19								
Sat 02May98	NOAA-12	1698.0000	00:49:10	00:55:26	01:01	15	d-e	36169
Sat 02May98	NOAA-10	1698.0000	00:49:47	00:57:21	01:04	74	d-w	60399
Sat 02May98	NOAA-12	1698.0000	02:28:04	02:35:28	02:42	43	d-w	36170
Sat 02May98	NOAA-10	1698.0000	02:32:24	02:36:18	02:40	4	d-w	60400
Sat 02May98	NOAA-11	1707.0000	03:40:48	03:48:14	03:55	33	d-e	49504
Sat 02May98	NOAA-11	1707.0000	05:21:41	05:28:32	05:35	21	d-w	49505
Sat 02May98	NOAA-14	1707.0000	09:25:17	09:32:49	09:40	38	a-e	17197
Sat 02May98	NOAA-10	1698.0000	10:25:43	10:29:29	10:33	4	a-e	60405
Sat 02May98	NOAA-14	1707.0000	11:06:44	11:13:30	11:20	18	a-w	17198
Sat 02May98	NOAA-10	1698.0000	12:00:50	12:08:24	12:15	71	a-e	60405
Sat 02May98	NOAA-12	1698.0000	12:02:54	12:08:18	12:13	10	a-e	36176
Sat 02May98	NOAA-12	1698.0000	13:40:08	13:47:41	13:55	67	a-w	36176
Sat 02May98	NOAA-10	1698.0000	13:43:14	13:48:28	13:53	8	a-w	60407
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Sat 02May98	NOAA-11	1707.0000	16:38:19	16:45:30	16:52	27	a-w	49511
Sat 02May98	NOAA-14	1707.0000	21:56:49	22:04:21	22:11	37	d-e	17205
Sat 02May98	NOAA-10	1698.0000	22:50:55	22:52:48	22:54	1	d-e	60412
Sat 02May98	NOAA-14	1707.0000	23:37:56	23:44:43	23:51	19	d-w	17206
Sat 02May98 passes = 19								
Sun 03May98	NOAA-10	1698.0000	00:25:37	00:33:08	00:40	60	d-e	60413

55°E

17

JAN-27-1998 15:07 TELONICS, INC P.03

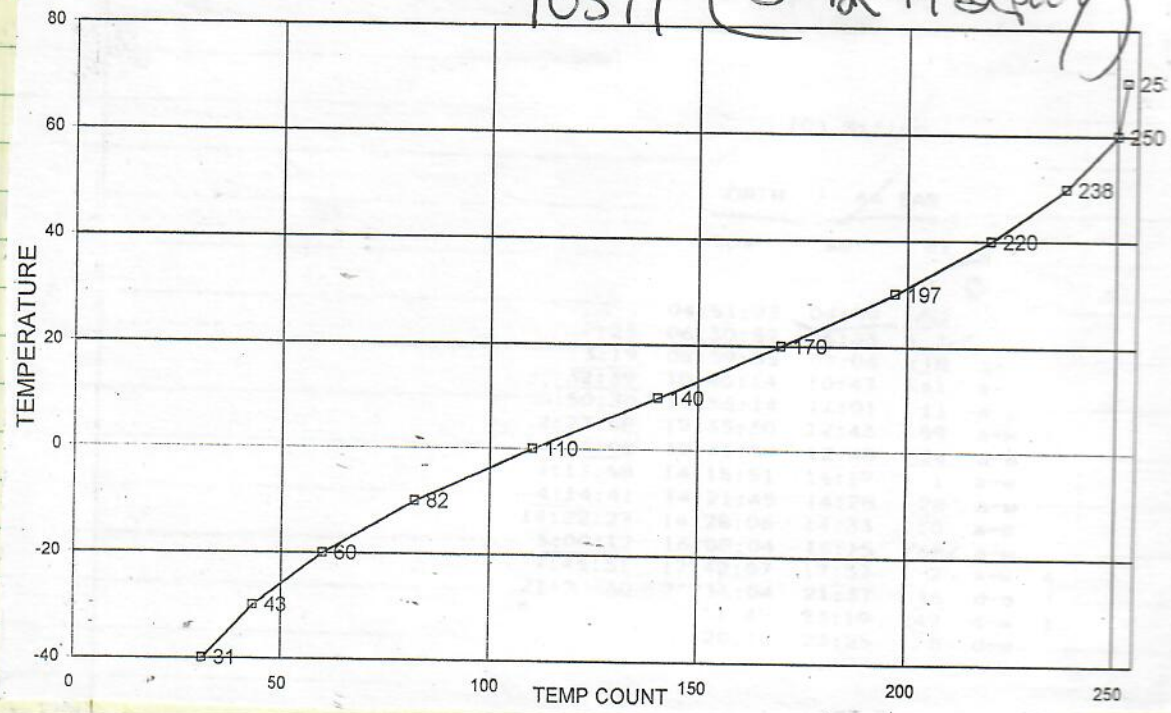
Telonics Satellite Predictor V3.13 Copyright (C) Silicon Solutions, Ir
observer(s): BALAZS object(s): a

BALAZS UNITED ARAB EMIRATES 24 NORTH / ~~64~~ EAST

date	object	beacon	rise	tca	set	el	geo	orbit
Sun 03May98	NOAA-12	1698.0000	00:28:21	00:33:18	00:38	7	d-e	36183
Sun 03May98	NOAA-12	1698.0000	02:05:58	02:13:34	02:21	76	d-w	36184
Sun 03May98	NOAA-10	1698.0000	02:06:48	02:12:25	02:18	11	d-w	60414
Sun 03May98	NOAA-11	1707.0000	03:28:36	03:35:44	03:42	25	d-e	49518
Sun 03May98	NOAA-12	1698.0000	03:48:38	03:52:41	03:56	4	d-w	36185
Sun 03May98	NOAA-11	1707.0000	05:08:55	05:16:10	05:23	28	d-w	49519
Sun 03May98	NOAA-14	1707.0000	09:14:33	09:21:50	09:29	30	a-e	17212
Sun 03May98	NOAA-14	1707.0000	10:55:16	11:02:24	11:09	24	a-w	17212
Sun 03May98	NOAA-10	1698.0000	11:37:00	11:44:16	11:51	38	a-e	60420
Sun 03May98	NOAA-12	1698.0000	11:42:57	11:46:38	11:50	4	a-e	36190
Sun 03May98	NOAA-10	1698.0000	13:17:37	13:24:05	13:30	17	a-w	60420
Sun 03May98	NOAA-12	1698.0000	13:18:12	13:25:44	13:33	71	a-e	36190
Sun 03May98	NOAA-11	1707.0000	14:45:57	14:52:45	14:59	20	a-e	49525
Sun 03May98	NOAA-12	1698.0000	15:00:48	15:05:58	15:11	8	a-w	36192
Sun 03May98	NOAA-11	1707.0000	16:25:30	16:33:01	16:40	36	a-w	49525
Sun 03May98	NOAA-14	1707.0000	21:45:58	21:53:16	22:00	28	d-e	17219
Sun 03May98	NOAA-14	1707.0000	23:26:38	23:33:46	23:40	25	d-w	17220
Sun 03May98 passes = 18								
Mon 04May98	NOAA-10	1698.0000	00:01:38	00:08:52	00:16	32	d-e	60427
Mon 04May98	NOAA-12	1698.0000	00:08:44	00:11:07	00:13	1	d-e	36197
Mon 04May98	NOAA-10	1698.0000	01:41:46	01:48:26	01:55	20	d-w	60428
Mon 04May98	NOAA-12	1698.0000	01:44:01	01:51:36	01:59	63	d-e	36198
Mon 04May98	NOAA-11	1707.0000	03:16:30	03:23:13	03:29	18	d-e	49532
Mon 04May98	NOAA-12	1698.0000	03:25:22	03:31:01	03:36	11	d-w	36199
Mon 04May98	NOAA-11	1707.0000	04:56:17	05:03:47	05:11	38	d-w	49533
Mon 04May98	NOAA-14	1707.0000	09:03:53	09:10:52	09:17	23	a-e	17226
Mon 04May98	NOAA-14	1707.0000	10:43:55	10:51:18	10:58	31	a-w	17226
Mon 04May98	NOAA-10	1698.0000	11:13:28	11:20:12	11:26	21	a-e	60434
Mon 04May98	NOAA-10	1698.0000	12:52:33	12:59:46	13:06	32	a-w	60434
Mon 04May98	NOAA-12	1698.0000	12:56:29	13:03:49	13:11	40	a-e	36204
Mon 04May98	NOAA-11	1707.0000	14:34:07	14:40:25	14:46	15	a-e	49539
Mon 04May98	NOAA-12	1698.0000	14:37:27	14:43:50	14:50	16	a-w	36205
Mon 04May98	NOAA-11	1707.0000	16:12:51	16:20:32	16:28	50	a-w	49539
Mon 04May98	NOAA-14	1707.0000	21:35:12	21:42:11	21:49	22	d-e	17233
Mon 04May98	NOAA-14	1707.0000	23:15:24	23:22:47	23:30	32	d-w	17234
Mon 04May98	NOAA-10	1698.0000	23:38:00	23:44:33	23:51	17	d-e	60441
Mon 04May98 passes = 18								
Tue 05May98	NOAA-10	1698.0000	01:17:07	01:24:22	01:31	36	d-w	60442
Tue 05May98	NOAA-12	1698.0000	01:22:17	01:29:35	01:36	36	d-e	36212
Tue 05May98	NOAA-12	1698.0000	03:02:40	03:09:16	03:15	19	d-w	36213
Tue 05May98	NOAA-11	1707.0000	03:04:32	03:10:41	03:16	13	d-e	49546

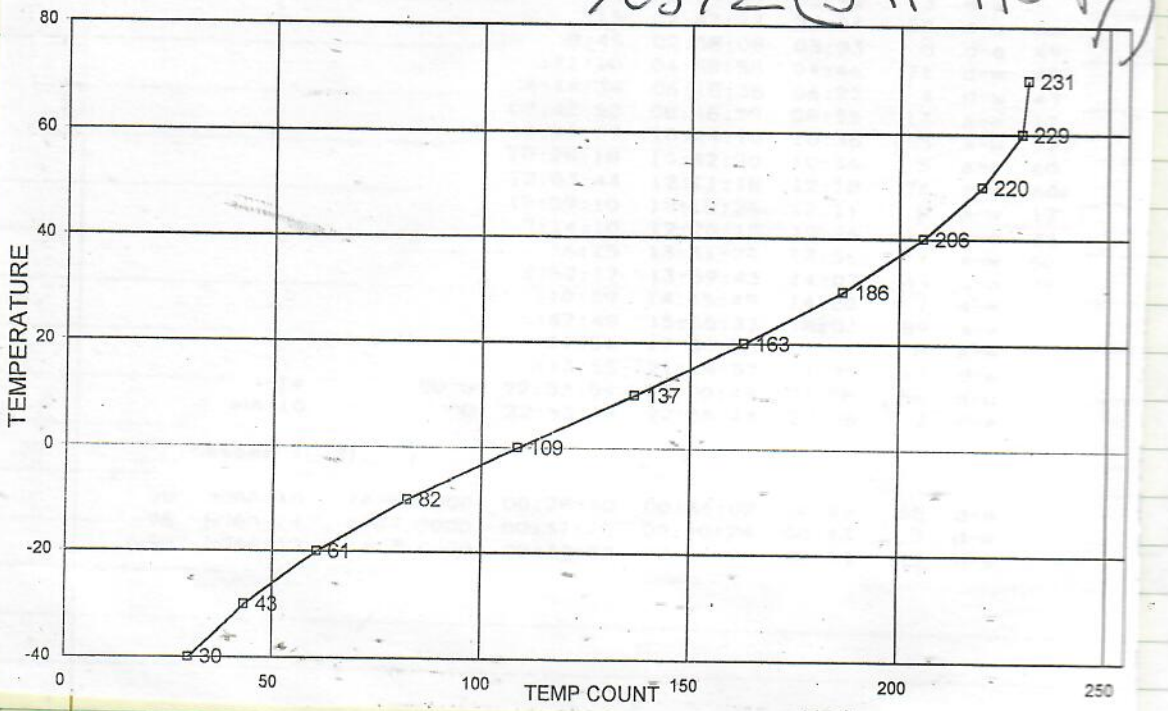
SYS # 420087A

10511 (5-12-99 Deploy)



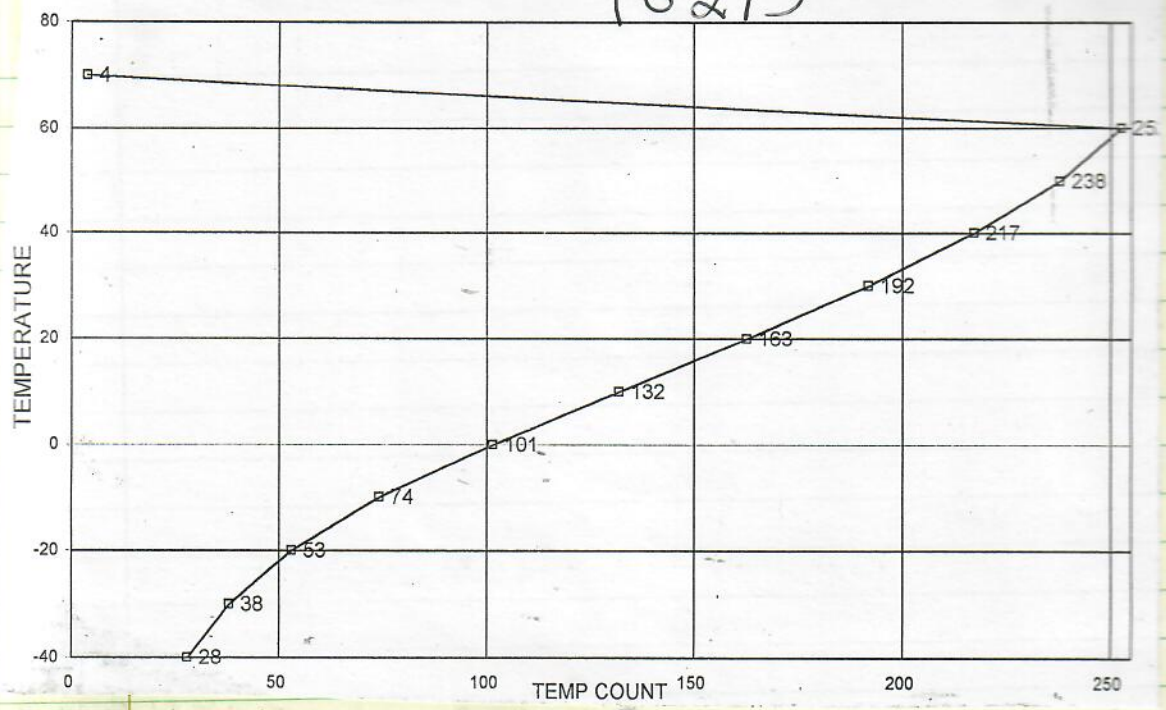
SYS # 420096A

10512 (5-11-99 Deploy)



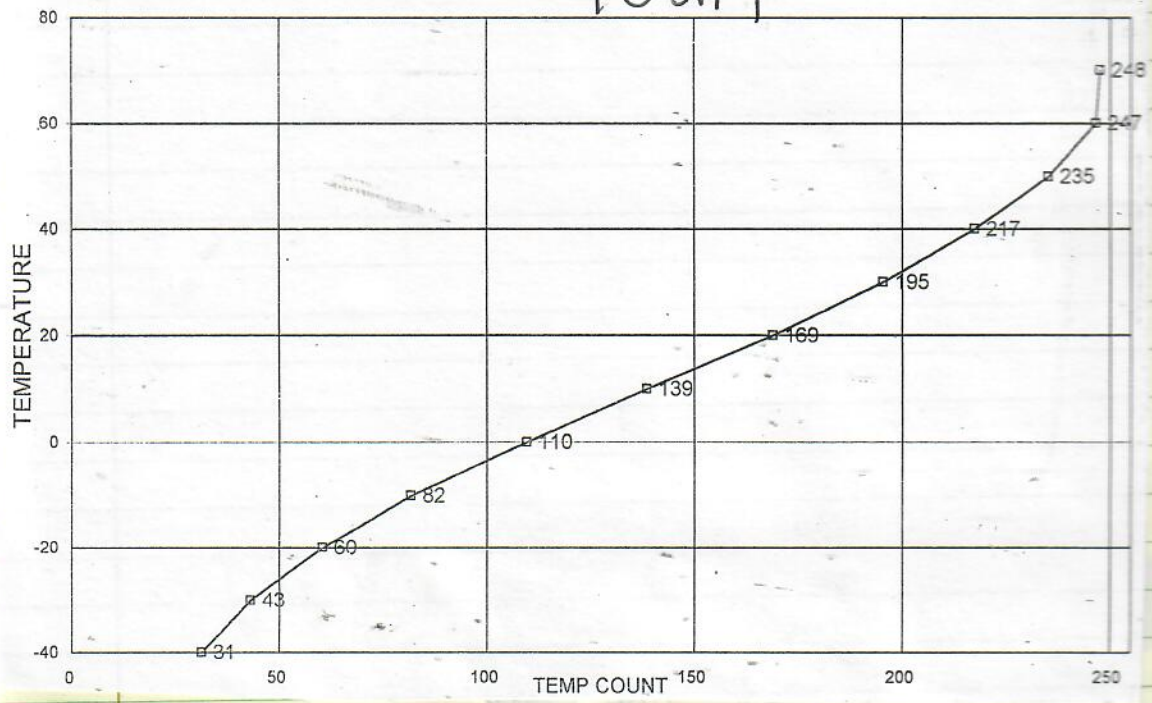
SYS # 420079A

10213



SYS # 420085A

10214



TELEMETRY-ELECTRONICS CONSULTANTS,
932 E IMPALA AVENUE • MESA ARIZONA 85204-5609
U.S.A. (602) 827-4444
FAX (602) 962-9139
TELEX 150231

PTT TRANSMITTER TEST DATA

FINAL TEST DATE: _____ PAGE 1 OF 1

STATE: United Arab Emirates AGENCY: Environmental Research & Wildlife

CUSTOMER: Derek Gliddon CUSTOMER #: 22898

WORK ORDER #: 960130009 A SPECIES: Turtle

CONFIGURATION: ST-14 ANTENNA: TA-5HFT

ATTACHMENT: customer designed

REMARKS:

OPERATIONAL LIFE: ~ @ ~ mSec; _____ @ _____ mSec; _____ @ _____ mSec

PTT DUTY CYCLE:

PTT				VHF SERIAL NUMBER	XMTR FREQUENCY (MHz)		PULSE WIDTH	PERIOD DATA (mSec/BPM)			DELAY TIME H/M/S	MAG TST	BATTERY SERIAL NUMBER	TEST BY
ID CODE Rep Rate	SYSTEM NUMBER	RF BOARD S/N Digital	BATTERY S/N		DESIGNED FREQUENCY	ACTUAL FREQUENCY		ACTIVE PERIOD 1	ACTIVE PERIOD 2	INACTIVE PERIOD				
39 10213	420079A	420079A	4484											
40 10214	420085A	420085A	4482											
41 10511	420087A	420087A	4483	5/99 E.i.										
42 10512	420096A	420096A	4487											

******Telonics Inc. Software Report******

Software Name..: ST970213
System Number..: 420087
Date Programed.: 3-04-98

10511

ID Code..... 10511
Message Length..... 8 bytes
Repetition Rate..... 41 sec
Power Up Transmit Time..... 0 hrs
Transmit Date & Time @ Start Up..... No
Magnet Restart time..... 5 sec
Magnet Stop time..... 30 sec
Real Dive Time..... 10 sec
Salt Water Switch Averaging Interval..... 12 hrs
Salt Water Switch Averaging Offset..... 0 hrs
Clear Last Dive Time afer Transmission..... NO
Salt Water Switch Failsafe Time Out..... 24 hrs
Seasonal Shut-down option..... DISABLED
Season Table Type..... Seasons specified in number of days

Season 1 65535 days	Season 2 0 days	Season 3 0 days	Ssason 4 0 days
On/Off Hours	On/Off Hours	On/Off Hours	On/Off Hours
9/ 3	0/ 0	0/ 0	0/ 0
0/ 0	0/ 0	0/ 0	0/ 0
0/ 0	0/ 0	0/ 0	0/ 0
0/ 0	0/ 0	0/ 0	0/ 0

******Telonics Inc. Software Report******

Software Name..: ST970213
System Number..: 420096
Date Programed.: 3-04-98

10512

ID Code..... 10512
Message Length..... 8 bytes
Repetition Rate..... 42 sec
Power Up Transmit Time..... 0 hrs
Transmit Date & Time @ Start Up..... No
Magnet Restart time..... 5 sec
Magnet Stop time..... 30 sec
Real Dive Time..... 10 sec
Salt Water Switch Averaging Interval..... 12 hrs
Salt Water Switch Averaging Offset..... 0 hrs
Clear Last Dive Time afer Transmission..... NO
Salt Water Switch Failsafe Time Out..... 24 hrs
Seasonal Shut-down option..... DISABLED
Season Table Type..... Seasons specified in number of days

Season 1 65535 days	Season 2 0 days	Season 3 0 days	Season 4 0 days
On/Off Hours	On/Off Hours	On/Off Hours	On/Off Hours
9/ 3	0/ 0	0/ 0	0/ 0
0/ 0	0/ 0	0/ 0	0/ 0
0/ 0	0/ 0	0/ 0	0/ 0
0/ 0	0/ 0	0/ 0	0/ 0

Above cross checked Visible as OK with "MUTUAL Summary" Pass (AEGOS website sat. predictor)

******Telonics Inc. Software Report******

Software Name..: ST970213
System Number..: 420079
Date Programed.: 3-04-98

10213

ID Code..... 10213
Message Length..... 8 bytes
Repetition Rate..... 39 sec
Power Up Transmit Time..... 0 hrs
Transmit Date & Time @ Start Up..... No
Magnet Restart time..... 5 sec
Magnet Stop time..... 30 sec
Real Dive Time..... 10 sec
Salt Water Switch Averaging Interval..... 12 hrs
Salt Water Switch Averaging Offset..... 0 hrs
Clear Last Dive Time afer Transmission..... NO
Salt Water Switch Failsafe Time Out..... 24 hrs
Seasonal Shut-down option..... DISABLED
Season Table Type..... Seasons specified in number of days

Season 1	Season 2	Season 3	Season 4
65535 days	0 days	0 days	0 days
On/Off Hours	On/Off Hours	On/Off Hours	On/Off Hours
9/ 3	0/ 0	0/ 0	0/ 0
0/ 0	0/ 0	0/ 0	0/ 0
0/ 0	0/ 0	0/ 0	0/ 0
0/ 0	0/ 0	0/ 0	0/ 0

9/3

******Telonics Inc. Software Report******

Software Name..: ST970213
System Number..: 420085
Date Programed.: 3-04-98

10214

ID Code..... 10214
Message Length..... 8 bytes
Repetition Rate..... 40 sec
Power Up Transmit Time..... 0 hrs
Transmit Date & Time @ Start Up..... No
Magnet Restart time..... 5 sec
Magnet Stop time..... 30 sec
Real Dive Time..... 10 sec
Salt Water Switch Averaging Interval..... 12 hrs
Salt Water Switch Averaging Offset..... 0 hrs
Clear Last Dive Time afer Transmission..... NO
Salt Water Switch Failsafe Time Out..... 24 hrs
Seasonal Shut-down option..... DISABLED
Season Table Type..... Seasons specified in number of days

Season 1	Season 2	Season 3	Season 4
65535 days	0 days	0 days	0 days
On/Off Hours	On/Off Hours	On/Off Hours	On/Off Hours
9/ 3	0/ 0	0/ 0	0/ 0
0/ 0	0/ 0	0/ 0	0/ 0
0/ 0	0/ 0	0/ 0	0/ 0
0/ 0	0/ 0	0/ 0	0/ 0

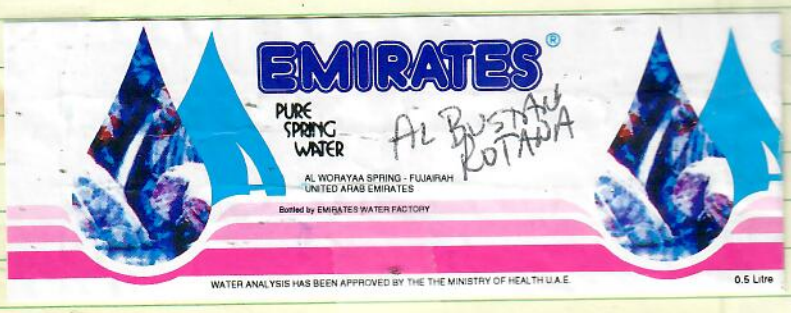
9/3

Date: Wed, 02 Jun 1999 11:20:51 +0400
From: Saif Al-Ghais <alghais@emirates.net.ae>
To: "George H. Balazs" <gbalazs@honlab.nmfs.hawaii.edu>
Subject: Re: First turtle we did

Fujairah UAE

[The following text is in the "iso-8859-1" character set]
[Your display is set for the "US-ASCII" character set]
[Some characters may be displayed incorrectly]

Dear George, I am now in Jurnain looking after 296 hatchling from five nest only, all are doing ok and they did start feeding after 2-3 days of hatching. The turtle sitelite # 10512 came for eggs laying on May 26 at 12:00 Am at the same plase. We could not count the number of eggs but they were large in size compearing them with earlier clutches. The satilite condition was good.
Saif,
At 06:24 í 01/06/99 -1000, you wrote:
>
>Is now clearly moving, no doubt about it, for maybe the past two days.
>Exciting! Aloha, George



Al Bustan Rotana

22

NMFS, HONOLULU LAB
Marine Turtle Research
2570 Dole Street
Honolulu, HI 96822-2396

Date: Sun, 11 May 1997 14:07:22 -1000 (HST)
From: "George H. Balazs" <gbalazs@honlab.nmfs.hawaii.edu>
To: "ERWDA- Dr. Saif Al Ghais" <alghais@emirates.net.ae>
Subject: Recommendations for sea turtle research and conservation education acti

Dear Saif: Here are the recommendations resulting from my trip to UAE that I promised to send you in an informal manner by email. I believe we already spoke about all of them. But it may be helpful now for you to have them to you in writing. If anything needs to be clarified, please don't hesitate to ask me. I have divided them into two categories- Research and Education.

RESEARCH- Sea Turtle Ecology and Biology

--Satellite tracking of nesting females to determine the post-nesting migration routes and locations of foraging pastures where the turtles live when not nesting. Conduct as early as feasible in your overall sea turtle program.

--Obtain tags for sea turtles and apply them at every available opporunity. It is recommended that an ample supply of both Inconel tags (National Band & Tag Co.) and titanium tags (Stockbrands) obtained as well as several applicators for each.

--Conduct nightly systematic monitoring at nesting sites where turtles in UAE are believed to be the most numerous.

--Conduct aerial surveys of coastal beaches and UAE waters using digital high-resolution video to determine the relative abundance of turtles hence locate areas of significance.

--Conduct and/or obtain satellite imaging of UAE waters to map seagrass distribution to deterimine availability of foraging habitat for green turtles.

--Convene a Gulf States Sea Turtle Workshop to develop stronger basis for regional cooperation on sea turtle research and management. Keep attendance by non-Gulf State persons to a minimum.

--Monitor selected fishing bycatch (such as coastal seine fishing) as a means to capture, examine, measure, tag, and samples sea turtles.

--Collect and bank small skin biopsies for the purpose of eventually conducting comprehsive analysis of DNA for genetic mapping of UAE sea turtle stocks.

--Sample in a quantitative and qualitative manner the seagrasses and algae of foraging pastures used by green turtles.

--Obtain highest resolution maps possible for coastal and island UAE waters.

EDUCATION- Sea Turtle Conservation Awareness

--Regularly utilize newspapers, radio and TV to increase the awareness of the sea turtle program.

--Use the satellite tracking data to full advantage in educational publicity when the tracking takes place.

--Issue a set of UAE postage stamps that portray sea turtles. / COINS

--Obtain the "sponsorship" of a Sheik to be a patron of sea turtles and the sea turtle program.

****

PRELIMINARY OBSERVATIONS ON GREEN TURTLES, CHELONIA MYDAS, IN FORAGING PASTURES OF THE UNITED ARAB EMIRATES

The Environmental Research and Wildlife Development Agency (ERWDA) of the United Arab Emirates (UAE) initiated a sea turtle research and conservation program in 1997 with funding from Shell Oil Co. Sea turtles in the Arabian (Persian) Gulf area have not been studied extensively; however, some research primarily on nesting beaches has been undertaken in Saudi Arabia (Miller, 1989), Iran (Kinunen and Walczak, 1971) and in Oman (Ross and Barwani, 1982). Published reports of sea turtles from the UAE are scarce. Brown (1985) provides a few records of green, Chelonia mydas, and loggerhead, Caretta caretta, turtles. Heath (1989) reports a hawksbill, Eretmochelys imbricata, in Das Island, and Brown (1990) reports green turtles from Qarnein Island. More recently, Aspinall (1995) and Baldwin (1996) confirm the nesting of greens and hawksbills and the occurrence of loggerheads, leatherbacks, Dermochelys coriacea, and possibly olive ridleys, Lepidochelys olivacea, in the UAE.

A preliminary survey was performed 19-20 February 1997 at Ras Al Khaimah Emirate, located on the eastern tip of UAE. Nearshore waters in this section of the Gulf are shallow and free of coral reefs. This habitat permits artisanal fishermen targeting finfish and cuttlefish to drag seines into shore. Generally, a 500 m seine is dropped approximately 1 km or more from the shore utilising two 5-8 m boats propelled by high powered outboard motors. One boat remains at the location where the seine is dropped as the second boat drops the seine in a half-moon direction, parallel to the shoreline, ending again about 1 km from shore. Both boats then drag the seine very slowly toward the beach to prevent the escape of the captured marine life. A total of 8 to 10 men are needed to pull in the seine by hand when the depth becomes too shallow for the boats to operate. Several hours are required from start to finish.

Three seine fishing performances by three different groups of fishermen were monitored. Turtles were captured alive and unharmed in all cases. A total of 14 green turtles were captured; 3, 5 and 6 turtles in each set. All fishing was done during the day time. Captured turtles were examined, measured, tagged, and released. Size classes based on curved carapace length (CCL) were tallied as follows: one turtle 35-39.9 cm (7%); three turtles 60-64.9 cm (21%); one turtle 65-69.9 cm (7%); one turtle 70-74.9 cm (7%); three turtles 75-79.9 cm (21%); two turtles 80-84.9 cm (14%); two turtles 90-94.9 cm (14%) and one turtle 100-104.9 cm (7%). Based on tail length, one turtle was estimated to be an adult male and one an adolescent male.

As turtles of considerable size range (37-102 cm) were observed, it is possible that there exists a resident population comprised of all post-pelagic age/size classes. This could be attributed to feed availability due to the fact that sea grass beds are present in the Arabian Gulf, composed of Halodule uninervis, Halophila ovalis, Halophila stipulacea and Syringodium isoetifolium (Sheppard et al., 1992). Halodule was noted washed up along the Ras Al Khaimah shoreline while observing the seine fishing. Residency of foraging turtles has been confirmed for the reef systems around offshore islands, the areas of north Jubail and Abu Ali and south of Safaniyah, in Saudi Arabia by Miller (1989). Aerial surveys over this area confirms the presence of turtles year round. Surveys in UAE waters will be continued to assess the age structure, habitat use, reproductive migrations and ecology, as well as other biological parameters, in order to create the necessary foundations to support an adequate management scheme for the Arabian Gulf turtles.

Aspinall, S. 1995. United Arab Emirates. In: D. A. Scott (Editor), A Directory of Wetlands in the Middle East. IUCN, Gland, Switzerland and IWRB, Slimbridge, U.K. 560 pp. +maps.

Baldwin, R. 1996. Marine Reptiles, p.136-148. In: Wildlife and Environments from the U.A.E. Trident Press Ltd., London.

Tel.: +971 7 446644, Fax: 971 7 446633
P.O. Box: 1946, Ras Al Khaim - U.A.E.
e-mail: bmbhrak@emirates.net.ae

Brown, J. N. B. 1985. Recent turtle records from the United Arab Emirates. Marine Turtle Newsletter 35:3-4.

Brown, J. N. B. 1990. Recorder's Report-Reptiles. Emirates Natural History Group Bull. 40:13.

Heath, D. C. 1989. Turtle Rescue on Das Island. Emirates Natural History Group Bull. 35:24-26.

Kinunen, W. and P. Walczak. 1971. Persian Gulf sea turtle nesting surveys. Job Completion Report. Division of Research and Development. Submitted to Iran Game and Fish Department. F-7-50. 16 pp. (Unpublished).

Miller, J. D. 1989. An assessment of the conservation status of marine turtles in Saudi Arabia. MEPA Coastal and Marine Management Series, Vol. 1. Report No. 9:1-202.

Ross, J. P. and M. A. Barwani. 1982. Review of sea turtles in the Arabian area, p.373-383. In: K. A. Bjorndal (Editor), Biology and Conservation of Sea Turtles. Smithsonian Institution Press, Washington D. C.

Sheppard, Ch., A. Price and C. Roberts. 1992. Marine ecology of the Arabian region: Patterns and processes in extreme tropical environments. Academic Press, London. 359 pp.

SAIF AL-GHAIS, Environmental Research and Wildlife Development Agency, Box 45553, Abu Dhabi, UNITED ARAB EMIRATES, GEORGE BALAZS, National Marine Fisheries Service, Southwest Fisheries Science Center, Honolulu Laboratory, 2570 Dole Street, Honolulu, Hawaii 96822-2396 USA, and CARLOS HASBUN, Environmental Research and Wildlife Development Agency, Box 45553, Abu Dhabi, UNITED ARAB EMIRATES.

Marine Turtle Newsletter

Number 35 December 1985

RECENT TURTLE RECORDS FROM THE UNITED ARAB EMIRATES

The United Arab Emirates is bordered by the Arabian (not the Persian here) Gulf to the north and the Gulf of Oman to the east. That there are still reports of turtles in the area is encouraging, considering the amount of pollution in these waters. However, little is being done to protect them. Some records from 1984 appear below:

Species	Size	Date	Location	Condition
Chelonia mydas	30cm	10 Feb	Da'biyah	beached, alive
Chelonia mydas	86cm	27 Feb	Khor Kalba	dead, decayed
Chelonia mydas	?	28 Feb	Jazirat Badiyah	beached, alive
Chelonia mydas?	?	9 Mar	Abu Dhabi	swimming
???	"large"	11 Apr	near UMM Shaif Super Complex	swimming
????	50cm?	13 Apr	Das Island	swimming
Caretta caretta	93cm	20 July	Dab'iyah	dead

Turtles are regularly spotted off Das Island in the summer months, reportedly measuring up to 100cm in carapace length. Identification is difficult as they are wary and dive whenever approached. Small ones are occasionally trapped in fishermen's drift nets. As recently as 1980 turtles could be seen on sandy beaches around Das early on summer mornings, and on occasion eggs were collected. It is not known whether females still visit the island to lay eggs.

Our records prove that at least two species of turtle, the green (Chelonia mydas) and the loggerhead (Caretta caretta) are still inhabiting Gulf waters, though probably in reduced numbers. If some conservation measures were introduced to protect their habitats and breeding grounds, they might increase in number to be a useful resource. Nests on offshore islands are still regularly robbed by fishermen to obtain the eggs for feed. This, together with the development and industrialization of several offshore islands and known mainland breeding areas, is probably leading to the overall decline in turtle numbers.

Should anyone interested in turtles, or any other natural history subject, be passing this way, they would be most welcome to get in touch with our Group. We may be able to offer them some form of help.

J.N.B. BROWN, Emirates Natural History Group, PO Box 303, Abu Dhaabi, UNITED ARAB EMIRATES

RAS AL KHAIMAH 5/98

"WRITE MMB UNIVERSITY HAWAII 96744" UAE R.A.K. SOME CAPTURES - Chelonia mydas

	PIT TAGS Right		CCL cm	CW cm	PL cm	TAIL cloaca cm	Remarks
	19 February 1997 - 3 TURTLES						
1	2-D	1-D	81.5	72.5	61.5	16.5	10.5	EST. MATURE FEMALE
2	3-D	4-D	91.0	85.0	71.5	44.5	33.5	ADULT MALE 2 LESIONS - CLOACA
3	6-D	7-D	79.5	71.0	61.5	—	—	EST. MATURE FEMALE
	20 FEBRUARY 97 (BARRIER IS. SOUTH) - 5 TURTLES						
4	10-D	8-D	64.5	55.5	51.0	11.5	9.0	CUTS on LEFT MARGIN Right hind AMP-INTE
5	12-D	11-D	60.0	53.5	47.0	10.5	7.0	Hanged dead TO CENTER CARAPACE
6	18-D	17-D	79.0	72.0	63.5	14.5	10.0	
7	21-D	20-D	62.0	55.0	49.0	9.0	5.5	
8	23-D	22-D	37.0	35.5	31.5	4.0	3.0	PHOTO AND SAVE
	20 FEBRUARY 97 - 6 TURTLES						
9	24-D	29-D	102.0	84.0	79.0	26.0	17.5	ADULT FEMALE
10	31-D	32-D	92.0	80.0	73.5	41.0	29.0	ADULT MALE
11	34-D	33-D	76.5	66.0	61.0	13.5	10.0	
12	35-D	36-D	80.5	73.5	64.5	17.0	13.0	LESION ON BOTH EYES
13	37-D	38-D	67.0	58.5	56.0	13.0	8.5	[illegible]
14	39-D	40-D	70.5	68.0	56.5	12.5	9.0	

TRANSCRIBED BY G. BAUERS 20 FEB 97

MKI TRAVEL AND CONFERENCE MANAGEMENT INC. VOYAGES ET GESTION DE CONGRÈS INC.

Date: Fri, 16 Jan 1998 10:09:42 -0200 (EDT)
From: protamar@e-net.com.br
To: alghais@emirates.net.ae
Cc: gbalazs@honlab.nmfs.hawaii.edu, mdonnelly@cenmarine.com
Subject: IUCN/SSC Marine Turtle Specialist Group

To: Saif Al-Ghais, United Arab Emirates <alghais@emirates.net.ae>
Hany Tatwany, Saudi Arabia (FAX: 00-9661-4922535)

From: Neca Marcovaldi, Chair, IUCN/SSC-Marine Turtle Specialist Group

cc: George Balazs, Deputy Chair, IUCN/SSC-Marine Turtle Specialist Group
Marydele Donnelly, Program Officer, IUCN/SSC-Marine Turtle Specialist Group

Date: January 15, 1998

Re: Discussion on a sea turtle workshop in the Middle East

Dear Saif and Hany,

At both the Northern Indian Ocean workshop in India (January 1997) and the CITES meeting in Zimbabwe (June 1997) I was happy to hear discussions of a possible sea turtle workshop in the Middle East. The IUCN/SSC Marine Turtle Specialist Group would be happy to participate in any way that the region would request of us. We would very much like to ensure that the regional meeting is developed from within the region. I apologize for any misunderstandings that may have arisen as a result of any miscommunications from the MTSG. Could you please advise the MTSG on the best way in which you would like us to participate and the colleagues from the region with whom we can communicate in this regard.

I look forward to hearing from you.

With best wishes and success, and wishing you a happy new year,

Neca Marcovaldi
Chairman

****
Fundacao Pro TAMAR
Caixa Postal 2219, Salvador - BA, 40210-970, Brazil
fax: 55 71 876-1067, fone: 876-1045, 876-1020
HOMEPAGE - http://www.ongba.org.br/org/tamar
****

Reduce
UAE

Date: Fri, 28 May 1999 09:36:10 +0400
From: Saif Al-Ghais <alghais@emirates.net.ae>
To: gbalazs@honlab.nmfs.hawaii.edu
Subject: Jurnain Turtles

Dear George, I just get back from Greece but I could not get to meet or call Dimitris. During the vist (in the frist day) Dr. Das called me to say they have the first hatchling 42 turtles in 24 May. They were followed by 38 and 72 in the next two days. Secondlly, one of the two tagged turtles from jurnain came back to nest on the Island, and it did (I would like to test our satellite map in ERWDA).Regarding the Fax which you have sent, yes I did recieved them from Amal, thak you for this letter which you have wrote to Mr. Darwish. As I tolled you I will be in Boston from 13-26 June or I could have arrange to attend to mexico workshop. I will be thankfull to you if you write the short message to the listserver discussion group on my behalf, "Announcing" the successful deployment first-time ever for the subregion of satellite transmitters on the two nesting hawksbill.
Finally, I tryed to open the attached file for Malaysia but I could not. Could you please send it on Word, and have you recieved a copy of my letter to Tim.

salaam, Saif

IN FRONT OF BIN MAJID HOTEL

RAS AL KHAIMAH MAY 1998 U.A.E.

Environmental Research and Wildlife Development Agency

هيئة أبحاث البيئة والحياة الفطرية وتنميتها

Memorandum

To:	**Lydia Martins, ARGOS CLS**
cc:	Dr. Frederic Launay, Dr. George Balazs
	00 33 05 61 39 47 85
From:	**Derek Gliddon, GIS Manager**
Date:	Sunday, 05 April, 1998
Reference:	h:\users\djg\external\argos1.doc
Subject:	**ADS and PTT initial location**
Pages	1

Dear Ms Martins,

I am writing on behalf of Dr. Frederic Launay, coordinator for our ARGOS programme 1440.

We have four new PTT's (as previously registered with you) which have been manufactured and tested by the Telonics company of Arizona USA. We expect receipt of these PTT's very shortly. We wish to advise that they will be put into operation in the Arabian Gulf at the end of April/early May. The PTT id's are 10213, 10214, 10511 and 10512 they will be affixed to Marine Turtles.

We wish to create a sub-account of ADS for our programme. The data from which will be accessed by Dr. George Balazs of the National Marine Fisheries Service, Hawaii, USA. His e-mail address is gbalazs@honlab.nmfs.hawaii.edu.

Can you please also note that our PTT's will come into operation soon after 28th April in the Arabian Gulf (a typical lat/long being 54d 00m 00s East and 24d 10m 00s North) please make the necessary adjustments so that we do not loose any of our initial data due to the relocation of the PTT's from the manufacturers in Arizona to ourselves in the United Arab Emirates.

Best regards

Derek J Gliddon

Head Office
P.O. Box: 45553
Abu Dhabi
United Arab Emirates (UAE)
TEL: 971-2-414441
FAX: 971-2-414131
Email: erwda@emirates.net.ae

Sweihan site
P.O. Box : 10000
Swelhan - Abu Dhabi
United Arab Emirates (UAE)
TEL: 971-3-747555
FAX: 971-3-747607
Email: narc@emirates.net.ae

موقع سويحان
ص.ب: ١٠٠٠٠
سويحان - أبو ظبي
دولة الامارات العربية المتحدة
هاتف: ٩٧١-٣-٧٤٧٥٥٥
فاكس: ٩٧١-٣-٧٤٧٦٠٧

المكتب الرئيسي
ص.ب: ٤٥٥٥٣
أبو ظبي
دولة الامارات العربية المتحدة
هاتف: ٩٧١-٢-٤١٤٤٤١
فاكس: ٩٧١-٢-٤١٤١٣١

Environmental Research and Wildlife Development Agency

هيئة أبحاث البيئة والحياة الفطرية وتنميتها

Memorandum

To: **Dr. George Balazs**
cc: Dr. Saif Al Ghais

From: **Derek Gliddon, GIS Manager**

Date: Monday, 06 April, 1998
Reference: h:\users\djg\external\balazs5.doc

Subject: **Resin and Catalyst**
Pages 1

Dear George,

Further to your last e-mail concerning resin and catalysts I am pleased to advise that I have been able to source the required materials locally. The material is in stock and is fresh.

I had assumed, because of the very detailed specification sheets which you had previously sent me and your e-mail of 10th March, that your requirements were for very specific types of resin/catalyst and therefore I suspected they may not have been readily available locally. Because of this assumption I have been in contact with the manufacturers of your previously used brands to identify local/regional suppliers. It was their slow replies that caused delay.

It transpires that the materials you require are those normally used by local fibreglass manufacturers and so, of course, are readily available.

Regarding the ARGOS matters I have passed the message onto Fred Launay for comment/action.

gards,

Derek Gliddon

d Office
Box: 45553
Dhabi
d Arab Emirates (UAE)

Sweihan site
P.O. Box : 10000
Sweihan - Abu Dhabi
United Arab Emirates (UAE)

موقع سويحان
ص.ب: ١٠٠٠٠
سويحان - أبو ظبي
دولة الامارات العربية المتحدة

المكتب الرئيسي
ص.ب: ٤٥٥٥٣
أبو ظبي
دولة الامارات العربية المتحدة

UAE

31

Copy to Dr George Balatz:

ARGOS
COLLECTE ENVIRONNEMENT SATELLITES

FACSIMILE MESSAGE -

page (s) : 1

Toulouse, April 14, 1998

TO :	Mr. Derek GLIDDON GIS MANAGER
Fax number :	+ 971 2 41 41 31
FROM :	CLS/USEROFFICE Marianne DONDIN
Fax number:	(33) 05 61 39 47 85

SUBJECT : Program n° 1440

1440

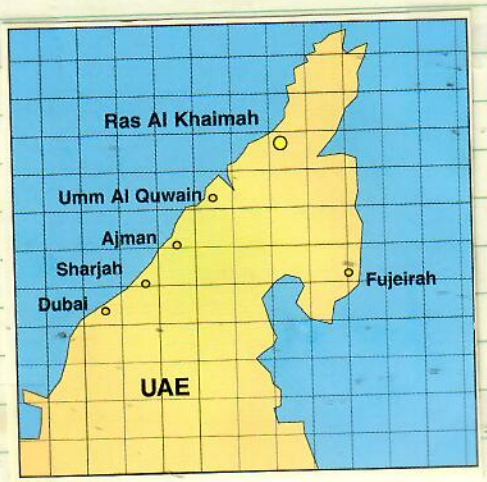
Dear Mr. Gliddon,

I refer to your fax dated April 11 and I hereby confirm that ids 10213, 10214, 10511 and 10512 are from now ready to be processed as requested.

Don't hesitate to contact me if you need more information.

Best regards.

Marianne
USEROFFICE



14/04 '98 TUE 14:25 FAX 00971 2 414131 ERWDA 001

Environmental Research and Wildlife Development Agency

هيئة أبحاث البيئة والحياة الفطرية وتنميتها

Facsimile

To:	**Lydia Martins**
Company	**ARGOS CLS**
Fax:	00 33 05 61 39 47 85
cc:	Dr. Frederic Launay, Dr. George Balazs +1 808-983-2902
From:	**Derek Gliddon, GIS Manager** or +1 808-943-1290
Fax:	+971 2 41 41 31
Date:	Saturday, 11 April, 1998
Our Ref:	h:\users\djg\external\argos2.doc
Subject:	**PTT Data**
Pages	1

Dear Ms. Martins,

With regard our ARGOS programme 1440. We have previously advised that four of our new PTT's (10213, 10214, 10511 and 10512) will be transmitting a 64 bit data stream.

I wish to confirm, as I believe we have previously advised, that the 64 bit data stream will have the following structure:

8 bits, 16 bits 16 bits, 16 bits, 2 bits, 6 bits

Can I ask that you please confirm that this is the data stream you are expecting from these four PTT's.

Best regards,

Derek Gliddon

14/04 '98 TUE 14:26 FAX 00971 2 414131 ERWDA 002
11/04 '98 SAT 16:07 FAX 00971 2 414131 ERWDA 001

****
*** TX REPORT ***
****

TRANSMISSION OK

TX/RX NO	1658
CONNECTION TEL	33 0561394785
SUBADDRESS	
CONNECTION ID	CLS/DO
ST. TIME	11/04 16:07
USAGE T	00'31
PGS.	1
RESULT	OK

14/04 '98 TUE 14:26 FAX 00971 2 414131 ERWDA 003
11/04 '98 SAT 16:03 FAX 00971 2 414131 ERWDA 001

****
*** TX REPORT ***
****

TRANSMISSION OK

TX/RX NO	1657
CONNECTION TEL	03747607
SUBADDRESS	
CONNECTION ID	S R S
ST. TIME	11/04 16:03
USAGE T	00'48
PGS.	1
RESULT	OK

E R W D A
Secretary General's Office
Time

BIN MAJID HOTEL, RAS AL KHAIMAH 5-98

Date: Wed, 04 Feb 1998 12:40:42 +0400
From: Environmental Research and Wildlife Development Agency
<erwda@emirates.net.ae>
To: "George H. Balazs" <gbalazs@honlab.nmfs.hawaii.edu>
Subject: Re: Request for Information

Dear George,

Thanks for the data stream info. Thanks also for your understanding on the data downloading issue.

We have, this morning, received the PTT ID's they are 10213, 10214, 10511 and 10512. ARGOS have said that the repitition period is 60 seconds. Fred advises that this period is an upper limit. ARGOS advise users to distribute the period over the range +/- 6 seconds of the proposed 60 second figure. Do you have any concerns about this; you previously mentioned 45 seconds? Is it something we have a say in?

Our programme number is 01440

Fred Launay has been advised that the Multi-Satelite system is NOT available globally. He has advised ARGOS that our primary area of interest is the Gulf and Arabian Sea - from this they will advise if the MSS is available. I'll let you know their feedback as soon as I have any informaion.

Thanks,

Derek

At 08:49 03/02/98 -1000, you wrote:
>
>Derek: The data stream for the ST14 we will be using contains 64 bits as
>follows:
>
>8-bit Temperature
>16-bit Last Dive Time
>16-bit Average Dive Time Over "AVGINT" Hours (we will have 12 hours)
>16-bit Dive Count for "AVGINT" Hours (again 12 hours for ours)
>2-bit Failsafe Flag (i.e. if no signals received for 24 hours the
> saltwater switch will be overridden)
>6-bit Dive Count Since Last Transmission
>
>Aloha, George
>
>PS Brenda, your response will only be needed if I have made a mistake in
>the above (which of course sometimes occurs!). Geo.
>
> **********
>
>On Tue, 3 Feb 1998, Environmental Research and Wildlife Development Agency
wrote:
>
>> cc: Dr George Balazs; Dr Frederic Launay
>>

>>
>> Dear Mrs Burger,
>>
>>
>> My colleague, Dr Frederic Launay has e-mailed Service-ARGOS regarding our
>> ST14 PTT's to request ID's. I believe this information is sent directly to
>> you by ARGOS, nonetheless when we receive it I will also confirm the details
>> with you.
>>
>> We will be operating the PTT's as part of an existing ARGOS programme, for
>> which we are subscribed to their 'A1' data processing option. Dr Launay
>> needs to advise Service-ARGOS on the number of channels; the bits per
>> channel and their application for the ST14 PTT's as ordered. Can you please
>> advise on this as soon aqs is possible - thanks.
>>
>> Finally, can I please re-state the urgency with which we need the PTT's.
>> The turtles to which we wish to apply the PTT's come ashore in April, we
>> must have them here in the UAE by that time. Please be sure to facilitate
>> their transportation by the most rapid means. I have been advised that the
>> hazardous categorization of the lithium content is such that transportation
>> can be slower than otherwise would be the case. We really would appreciate
>> it if you could ensure that all measures are taken to get the PTT's to us
>> without undue delay.
>>
>>
>>
>> With thanks and apologies for the continual harassment!
>>
>> Derek Gliddon

Date: Thu, 5 Mar 1998 08:43:10 -1000
From: Dr Walter C Dudley <dudley@hawaii.edu>
To: "George H. Balazs" <gbalazs@honlab.nmfs.hawaii.edu>
Subject: Re: Gentle Reminder

Szif UAE

George,

E.O.L.S.S.

Good news - the new vessel has finally left the west coast and should be off Maui by mid to late March. Our vessel should be here within a couple of weeks after that, and we'll begin to have our first idea about actual operating costs and true capabilities.

My contact in the U.A.E. is Darwish Al Gobaisi. He is Editor-in-Chief of the UNESCO-sponsored international Encyclopedia of Life Support Systems (EOLSS)(and a member of the aristocracy). His telephone number is: (+971-2)-347-038. I'm not sure what part you dail from the UAE. If you actually get through, please give him my regards and invite him to come to Hawaii to participate in one of our tagging expeditions - you never know, he might give us a few million for funding.

Saudi = Hany Tatwany
Oman = Ali Al-Kiyumi.
Director of National Conservation Service
FAX 968-602-320

Date: Sat, 25 Apr 1998 13:16:22 +0400
From: Environmental Research and Wildlife Development Agency
<erwda@emirates.net.ae>
To: "George H. Balazs" <gbalazs@honlab.nmfs.hawaii.edu>
Subject: Re:Message for Walter Pearson

GEORGE: I believe we understand. Dr. Saif will call you tonight at 10 to 11 pm our time to discuss with you what can be arranged. We are willing to fast track this with just going to Ras Al Khaimah. Please send a shipping list and we shall get the stuff here. Please talk to Dr. Saif and stay in touch. Take care. WHP

At 07:07 23/04/98 -1000, you wrote:
>
>Dear Walter: Several crucial issues have just come up here that will
>necessitate my making as short a trip as possible to UAE. It is either
>that option, or, having to cancel altogether with regrets. I urgently
>need your help in this regard. First, when we finish the attachment work,
>I will want to fly home immediately thereafter. I would like you to
>evaluate this option, given the airline ticket I have now. I know there
>are daily flights out, so service to London, and London to Honolulu,
>should be no problem whatsoever. Second, I understand from your message
>that I arrive on the 29th, but that we will not be going to the
>deployment site until May 2nd. Can that be tightened up so that we can go
>there sooner? Maybe there's something in the schedule that I'm not aware
>of. Please advise.
>
>My difficulties here are both personal and work-related. I have an 80
>year father who is now alone, as my mother died in December. He needs
>help that only I (only son) can supply.
>
>Thank you. George

Date: Sat, 25 Apr 1998 08:27:25 +0400
From: Environmental Research and Wildlife Development Agency
<erwda@emirates.net.ae>
To: "George H. Balazs" <gbalazs@honlab.nmfs.hawaii.edu>
Subject: Re: Visa arrived by Fax

GEORGE: 1) Received the bio OK. Thank you. Understand your concerns about the press release. I intend to have something worked up to be run by you before release, but I can make no guarantees. I hopt that you understand that the CNN visit is fixed by higher authority. 2) Your first day in UAE is to be one of rest and the next day one of preparation. The obvious items on your list we can pick up now but you can go into town with Steve Britsch for the rest. 3) I understand two turtles from the nesting islands and two from Ras Al Khaimah - the hypothesized staging point. Supply at Ras Al Khaimah is boom or bust - 20 or zero. We need to play some of it by ear. $) See you at the airport. Have a good trip. WHP

At 16:29 22/04/98 -1000, you wrote:
>Dear Walter: Thanks so much for all the excellent information, you have
>mapped it out perfectly for me and I am appreciative. Just to let you
>know that a little shopping will be needed by us before going to the
>island for the transmitter attachment. We need to buy a few things that
>just wouldn't make sense for me to obtain here and pack in my suitcase.
>The items include 1.5-2.0 inch wide paint brushes- about 16 of them,
>sissors, a putty knife, mixing cups (for the resin- 8-10 ounce size,
>wiping rags, rubber surgical gloves (cheap disposable type), and some
>other minor but vital things that I can't recall right now. It is best,
>I think, to do the shopping when I am there to make it easier. It sounds
>as if there will be sufficent time.
>
>Is it your understanding that we will try to put all four transmitters on
>nesting turtles on the island? Or, I had suggested, trying to put one or
>two on large turtles caught alive and released in the shoreline seine
>fishery?
>
>This morning I faxed you a one-page bio about me. Did you receive
>safely? Best regards, and thank you again for all your help.
>Aloha, George
>
>
>
>
>
>
>
>
>
>
>
>
>On Wed, 22 Apr 1998, Environmental Research and Wildlife Development Agency
wrote:
>
>> George: We are glad that you have received the visa fax and appreciate that
>> you have acknowledged it. Derek is still away but is expected back just
>> before you arrive. Concerning being met, here is no question that someone
>> from ERWDA - probably myself and a driver - will meet you at 2330 on 29 APR
>> at the Dubai airport. With the copy of your visa, passport, and return
>> ticket, you should have no trouble boarding the plane in London. When you


```
*************************************
*       George H. Balazs, Leader    *
*   Marine Turtle Research Program  *
*  National Marine Fisheries Service *
*        Honolulu Laboratory        *
*         2570 Dole Street          *
*   Honolulu, Hawaii 96822-2396 USA *
*        Tel:(808) 983-5733         *
*        Fax:(808) 983-2902         *
*Email: gbalazs@honlab.nmfs.hawaii.edu*
*************************************
```

>> enter the Dubai airport terminal, the visa collection desk is in the middle
>> of the lobby before you enter passport control. Please obtain the original
>> copy of the visa from the visa collection desk by presenting the faxed copy.
>> Please do this before entering passport control, which requires the original
>> visa before they can stamp your passport. After clearing passport control,
>> please collect your bags and pass through customs. There are carts and
>> skycaps to help you with the bags. After clearing customs proceed out the
>> door. Someone from ERWDA will be behind the rail and holding a sign with
>> your name. While you will be our guest, for personal purchases it is
>> advisable to exchange some money for the local currency at the airport bank
>> - the rates will be much more favorable that at the hotel. Dr. Saif has
>> seen that your accommodation has been arranged. You will be in the Gulf
>> Beach Hotel in Abu Dhabi, which is near the ERWDA Head Office. Dr. Saif has
>> made arrangements for us to travel to the nesting islands on 2 MAY. Please
>> enjoy the trip.
>>
>> The satellite tracking transmitters have arrived and are locked up in my
>> office. Dr. Fred Launay has arranged for the ARGOS time. The turtle
>> restraining box is here in the hallway. I am given to understand that the
>> resin is available in Ras Al Khaimah. I am having someone look into
>> acquiring it. I believe that all we need now is your good self and some
>> turtles.
>>
>> A quite recent development has been the news that CNN will be doing a
>> documentary on the environmental achievements of UAE and will be filming
>> several ERWDA field projects. The hope is that the sea turtle work will be
>> featured among the clips. I do not know if you were informed about this.
>> We learned on Saturday or Sunday.
>>
>> If you have any questions or just want to talk, please feel free to call me
>> at the office - 011-971-2-414441 - at home - 011-971-2-762502 - or on my
>> mobile - 011-971-50-4422188. Within UAE, my mobile is 050-4422188. We
>> truly look forward to your visit. Best Regards, Walter Pearson
>>
>>
>>
>> At 22:05 20/04/98 -1000, you wrote:
>> >
>> >Derek- I am writing to let you know that the fax with the Visa
>> >information has arrived here. I will do as you instructed.
>> >
>> >I presume and prefer that a hotel reservation will be made for me in
>> >Dubai. If you can give me that information by email, I will know where to
>> >go in the taxi when I arrive late at night. I don't want anyone
>> >inconvenienced by meeting me at the airport at that very late time at night.
>> >
>> >Many thanks,
>> >George

Date: Sun, 26 Apr 1998 11:21:31 +0400
From: Environmental Research and Wildlife Development Agency
<erwda@emirates.net.ae>
To: gbalazs@honlab.nmfs.hawaii.edu
Cc: alghais@emirates.net.ae
Subject: Message from Dr. Walter H. Pearson

George: My apologies on the CNN issue. I did try to explain in my email of 22 APR 98. Working with CNN came down from higher authority on very short notice. Whether or not you are filmed by CNN is entirely up to you. Dr. Saif has now arranged it so that you do not have to be involved unless you wish to do so. Similarly, with any press release. I can fully understand your position if you are here as a colleague rather than a representative.

Please try to come for arrival on 29 APR. We will fast track this so that you can leave on late on 4 MAY or early on 5 MAY. It will be easier for us to change your tickets here that to issue new tickets to you at this point in time. Or do you wish to arrive later? Our key days in Ras Al Khaimah are 2,3,4 MAY. Friday, 1 MAY, is the Holy Day here and the fishermen will not fish.

Dr. Saif did try to reach you last night our time, but only has your office number and it was the weekend. He will try again tonight at 10 or so our time. If you and he do not connect, please feel free to call me. My mobile is 011-971-50-4422188 and my home phone 011-971-2-762502. My fax at home is 011-971-2-763238. Please feel free to contact me and I can call you back at a number convenient to you.

There is no question that we wish you to visit us but we will completely understand if your family obligations prevent a visit. Be assured of our best regards, WHP

Date: Tue, 19 May 1998 17:37:04 +0400
From: Environmental Research and Wildlife Development Agency
<erwda@emirates.net.ae>
To: "George H. Balazs" <gbalazs@honlab.nmfs.hawaii.edu>
Subject: Re: Hello Steve

Geroge,

Yeah, abviously no luck at Qarnayn. We are heading out to merawah, which is 80 or so K to the South of Qarnayn. We'll survey that island, and I plan on checking on Butinah while we are out there.

I assume that the satellites are still orbiting on the same timing. That is, if i remove the magnet at either 1:30am or PM i'll still have optimal coverage?

If we can't get turtles this time...I'm resorting to the rodeo method. Wish us luck!

Take it easy,
Steve
PS got your camera case and will forward it on upon my return.At 02:43 19/05/98 -1000, you wrote:
>
>From the Argos data I guess you didn't encounter any turtle when looking
>recently for nesters. Did you visit the same island? Will you be going
>again in the near future. I'd be interested to learn. Note that I
>mailed you some photo the other day. Best regards, George
>

Date: Thu, 21 May 1998 21:15:33 +0400 ( )
From: "Dr. Saif M. Al-Ghais" <alghais@emirates.net.ae>
To: "George H. Balazs" <gbalazs@honlab.nmfs.hawaii.edu>
Subject: Re: Fedex for Dr. Saif from George Balazs

Dear George, Thank you, and I would like to confirme receiving the items which you have sent by FEDEX. I just came from Murawah isld (south of Bu tainah isld) I was with Walt, Ron, Steve, and Tony Preen we were looking for Dugong, turtles, and some sea-grass. Thanks God we manage to see some Dugongs (By Helocapter) south of Bu tainah isld, their were many turtles too. So far we are unable to get any turtles from Abu Dhabi to use the transmeter on them. In this trip there were no fire but we had to fly verey low because we were infomed of some fighter plane in the air which we are flaying over.

I forget to aske if our paper of last year work been published or not yet? I think you said some time that it has been accepted (I do not have any final copy).

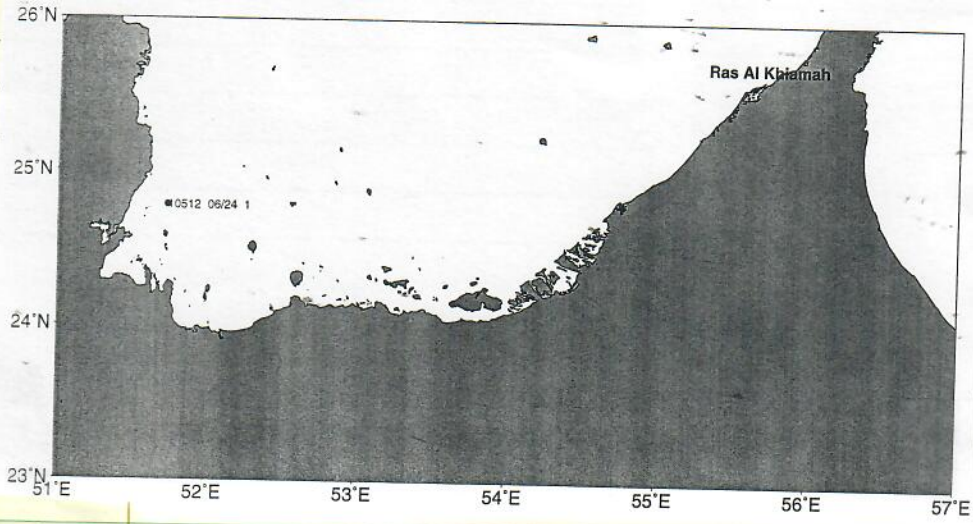
Hope to see you this summer.

Saif Al-Ghais

Date: Fri, 03 Sep 1999 03:04:42 +0400
From: Saif Al-Ghais <alghais@emirates.net.ae>
To: "George H. Balazs" <gbalazs@honlab.nmfs.hawaii.edu>
Subject: Jurnain Turtle

Dear George- When I saw the word IRAN in your e-mail I said what are you planning now?. Anyhow, I do not know this pearson but do you think I should contact him and can I say that we work togather in the Gulf Arabian or Percian?. Incase you would like to know about Jurnain Turtles, because of overcrowded in the tanks and high temperature (I could not manage to have them keep 200 as my oreginal plan)the turtles develop some bacterial disease and start dieing. After that, we (they) start releasing some of them after they have reached more than 980 and more than 100 have died. Now we have 195 all are doing Ok but they were from the late hatchling in the season the healthyer ones were in the beging. Please advice-CAN YOU YOU USE ICUBATER FOR TURTLE EGGS? becuse the Samaliah Isld people they said they have order some incubater for turtle eggs -may be they are getting some advice from Australian ....?Have you received any information on Perth meeting? I did not get any reply from Tim yet?
Best regards, Saif

10512 Date : 24.06.99 01:55:46 LC : 1 IQ : 50
Lat1 : 24.783N Lon1 : 51.736E Lat2 : 21.365N Lon2 : 67.672E
Nb mes : 006 Nb mes>-120dB : 000 Best level : -123 dB
Pass duration : 524s NOPC : 3
Calcul freq : 401 649918.6 Hz Altitude : 0 m
183 102 643 32
00 00



From Page 7 Photos not allowed

5/2/98 Saw many platforms/mooring oil on return flight.
Saturday Sheik's Palace on island peninsula outside second of ABU DAHBI city. Land at AIRBASE - BAGS thru X-Ray. TO/ ERWDA Headquarters offices - Met Ron Phillips - complaining about Electric Co. turning off power when he went to Phillipines Sea Grass conference - just returned.
Need Aquatic Botany recently publish by Kent Bridges' student, Denal (HERBERT.) Halophila - growth rate, etc.
~ 3pm checked back into GULF BEACH HOTEL.

Noted article in TRIBULUS winter 1997 Vol 7.2 "A preliminary Note on Ceramics from the island of QARNEIN" by Geoffrey King and Peter Hellyer

Called Dad 80th birthday and C.N.

5/3/98 up 6 AM - Breakfast w/Derek and
Sunday Steve and Walter.
Drove to RAS AL Khaimah, via Dubai, Sharja, Ajman
Checked in to BIN MAJID Hotel (person not invested?) compass?)
Room 404.
TO "Research Station" at harbor/Coast Guard point. Drove with Steve along beach nearly to hotel rock jetty. No fishing boats noted - Moderate wind said to prevent fishing.
Low tide and interior of tidal flat is nearly bare.
Saw hired fishing boats to pull net - 6/500 drums. 2 men each.

"BARRACUDA"

5/3/98 Sunday We took 2 ERWDA 28' boats to sand bar. Net ashore about 4 PM. 23 turtles, probably 20 other over the net escaped. 6 large selected to take to station. one had Oman tag = "327810" (L2-3) "Reward MINENVIRON P.O. BOX 323 MUSCAT, SULT. OMAN" (Not locked) Stockbrand TITANIUM

Apparent female. SAT. TAG 10214 ID

This turtle, and another, larger female, kept for sat. tag.

Roselette Bosco

Suggested attach sat tag and taking 1-2 to ABU but Sail decided to keep the two other transmitters for return to nesting island.

5/4/98 ST14 ID 10213 9/3 MAGnet off 5/4/98
Monday 130AM
Sys 4200794

" Incomel 681 Reward ERWDA 2.00 2.50
"329" Box 4555
R2S ABUDHABI UAE
Lock Dorsal

8AM "328" L2S CCL=99 cm
CCW=92 cm

ELASTOMER
9 drops, 3-4 oz

TOTAL TIME 2 hrs 30 MIN
N 25° 42.889'
E 055° 47.732' Research Station RAK
RAS AL KHAIMA

ELASTOMER 8:30AM

85 drops TO 3 ounces
10 15PM 3rd cup resin -3 cloth applications

Release 11 to 11AM

N 25° 42.905'
E055° 47.616' RAK ocean side

SKIN Biopsy RHF
INTO salt.
halved - half to Steve

9 on / 3 off

MAGNET OFF = 130 AM 5/4/98

ST14

ID 10214

5/4/98 Monday

SYS 420085A

As per Saif 6/27/98 EMAIL "Tagged 6/97 RAS AL-H

99.5 CCL

92.0 CCW

OMAN Recap "327810"

Second Turtle

Inconel 681 - newly applied by Steve, OMAN Tag not put back on.

332 R15 Lock dorsal

333 L1S " "

020 breaks keeles at Tag hole

L2-3 hole (Collected by Jude 10/20 formalin)

1135 AM START ELASTOMER

1250 pm 2nd resin

"Bourgeau" applied 130 PM 3rd mix = several layers of cloth at anterior end facing

DNA LHF "14" on card (BLACK INK + SOIFS ERWDA address + ERWDA EMBLEM STICKER

SKIN (hemostat + sample)

TOTAL TIME = 2 Hours 15 MIN

Finished 150 PM

205 pm release

Same GPS

Used ~ 3 OUNCES 02 Resin (Second brand obtained RAK PLASTICS)

+ ~105 drops catalyst

= 25 MIN TO CURE TO TOUCH

PAGONG = TURTLE (TAGALOG)

5/4/98 Motored to sand bar where hired fishermen for the second day had brought in the net (~1 inch knot-to-knot twine). Three turtles waiting for us, although I suspect

JUDE HOWLETT VN
HEAD VETERINARY NURSE ♀
at RAK

AL AIN 03 820114
FAX 03 889929

5/5/98 Tues.

Col Campus TOM (Mobile) T – "Support Role"
Aeroscopy Publications Need
050 6433502
03 520052 (Home)

Sunday 14 They had caught and let go many more. Two large ♀, are juvenile. Many photos w/ Saif, "CNN" film persons, etc. ~5 pm returned to research station. Took ~45 min helicopter ride along RAK coastline and to marsh areas interior.
Evening – to "KHAT" Village Mountains – Mineral hot spring.
Bought TAKE-OUT food w/ Saif, Walter Pearson, Aki, Steve. Ate at "Round-About" near Airport.

RAK

5/5/98 UP ~ 830am Breakfast 9AM w/walter
TUESDAY and Steve at BIN MAJID Hotel.
windy - Seems like higher surf.
Talked to Saif ~ 1130AM - Taking his
father to ABUDABHBi for eye checkup
Can't see in one eye following cataract
surgery. Met by Saif's driver "RALH"
1pm - driven to DUBAI - stopped at
Research Station to look for my camera case.
Saw black dog, part lab "Rocky".

Need EMAIL ABOUT CAMERA CASE in DUBAI

VENDOME PLAZA HOTEL in DUBAI.
terrible hotel!
3-6pm walked to Creek waterfront -
boats unloading - tires, rails, etc.
TAXI TO "GOLD SOUK", walked back
to hotel.

Saif planning to come to Hawaii (salt plant)
late July) after conference in BALI.

5/9/98 Depart Hotel 6AM for DUBAI AIRPORT.
TUESDAY * EMIRATES severely overbooked.
Depart EMIRATES Flight 01 for London. Clear
sky over HUNGARY ~ 2-2.5 hours before London
Arrive London ~ 1250PM (London Time)
(saving time) 3 hours behind UAE, not 4 hours as is GMT
Rebooked by United to UA931 to San Francisco
departing 245pm (due to late arrival of EMIRATES
flight I was on).
5/6/98 FL. 63 UA 720pm → Honolulu

5/4/98 from CNN - making/directing film
JENNIE GARLINGTON
141 LAKEVIEW AVE.
ATLANTA, GEORGIA U.S.A.
30305
on the environment for UAE. need to send photo.
2 months pregnant
sent photo

Michelle Jungquist
Chamber of Commerce
Building
5/4/98
Sheik Sk. Mohd bin Rayed
Al Nahayan's Office
8th Floor
Abu Dhabi
UAE
(02) 346501
High school friend of Jennie Garlington. worked in UAE for 9 years.
sent photo

Roselette Basco
sent Weed Turtle picture

فندق وشاطئ بن ماجد
BIN MAJID BEACH HOTEL
P. O. BOX : 1946
TEL. : 07 - 352233
FAX : 07 - 353225
RAS AL KHAIMAH

Tom Carney
CONNER SOUNDMAN
send photos
Sent

TYRONE EDWARDS PRODUCTIONS
CAMERAMAN
DIR. OF PHOTOGRAPHY

PO BOX 8766
ATLANTA, GA 31106
jtfc@mindspring.com
404~817~3458 PHONE
404~724~0704 FAX
888~953~3144 PAGER

Dr. SAIF M. AL-GHAIS
Secretary General

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Walter H. Pearson, Ph.D
Head of Marine Environmental Research Center

050-4422188 WHP
050-4428401 SB

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National Avian Research Center

DEREK GLIDDON
Geographic Information System
and Remote Sensing Specialist

Tel.: 03 - 747555
Fax.: 03 - 747607

P.O.Box: 9903
Sweihan
United Arab Emirates

Tom Barclay

P.O. Box 30877 - Abu Dhabi - United Arab Emirates
Telephone : 971-2-327777 - Telefax : 971-2-216777
E-mail : baynunah@emirates.net.ae

Hilton
Baynunah

Date: Sun, 6 Jun 1999 23:52:02 -1000 (HST)
From: "George H. Balazs" <gbalazs@honlab.nmfs.hawaii.edu>
To: CTURTLE@lists.ufl.edu
Subject: Satellite tracking of Arabian Gulf hawksbills

My colleague, Dr. Saif Al-Ghais of the ERWDA environmental agency in Abu Dhabi, United Arab Emirates, has asked me to pass this information to Cturtle subscribers. Last month, on May 11-12, two hawksbills at Jurnain Island were fitted with satellite transmitters to follow post-nesting migrations and identify end-point foraging habitats. This study is believed to be the first of it's kind for the species in the sub-region. Presently the transmitters on both turtles are sending good locational data on a daily basis. When the trackings are completed a summary of results will be sent to Cturtle and the Marine Turtle Newsletter.

Jurnain Island is situated at 24.8N, 52.8E, about 100 miles from Abu Dhabi in the Arabian Gulf. The island is an important site for nesting sea birds and hawksbills. The site is protected and maintained for the benefit of these species. The owner of the island, His Highness Sheikh Hamdan bin Zayed Al Nahyan, is the Deputy Chairman of ERWDA and he has taken a personal interest in the research and conservation of hawksbills and other sea turtles of the UAE.

6/30/98

Reduce UAE

Date: Tue, 30 Jun 1998 18:23:24 -1000 (HST)
From: "George H. Balazs" <gbalazs@honlab.nmfs.hawaii.edu>
To: "Dr. Saif Al Ghais" <alghais@emirates.net.ae>
Subject: RE: Rearing turtles inUAE

Saif- I have contacted a close friend and extremely knowledgeable person who heads up a major oceanarium display in the Bahamas. He used to live and run the reef tank and the sea turtle element at Sea Life Park here in Hawaii. He took the job in the Bahamas about 3 years ago, as it pay Exceedingly well and he likes the challenge of new things. I have asked him to advise us on this project for rearing turtles on the island.

The issues at hand are

1) How many turtles might you want to raise at one time from hatchlings?

2) What species? Hawksbills I presume?

3) Where will the hatchling come from? Incubate eggs, or go to other islands t collect hatchings by having someone stay on the island to wait for hatching?

4) How large would you want to raise them? One year? Then release. Or, longer?

5) What are the currents around the island? Are there maps showing this information? What is the annual sea water temperture - range? What are depths around the island?

All of these above are VERY important to making a first estimate of what is best to do. For example, would it be best to dig a seawater well to pump up water? Or, pipe it in to the tanks from offshore a ways.

Lastly, a very important question that Steve my friend asked me. How much money can be committed to this project? Obviously the situation will be very different between, say, your having a budget of US$20,000 versus US$200,000. (this is just an example, I'm not sure that even the higher amount would be adequate to build facilities).

I await your advice so I will know best how to help. Aloha, George

****
* George H. Balazs, Leader *
* Marine Turtle Research Program *
* National Marine Fisheries Service *
* Honolulu Laboratory *
* 2570 Dole Street *
* Honolulu, Hawaii 96822-2396 USA *
* Tel:(808) 983-5733 *
* Fax:(808) 983-2902 *
Email: gbalazs@honlab.nmfs.hawaii.edu
****

On Sun, 28 Jun 1998, Dr. Saif Al Ghais wrote:

> George, I would like to issure you that the purpose of this is to pretect t
> Please use this e-mail to contact me and NOT erwda@emirate. If you want to
> saif,,,
>
> ----------
> From: George H. Balazs[SMTP:gbalazs@honlab.nmfs.hawaii.edu]

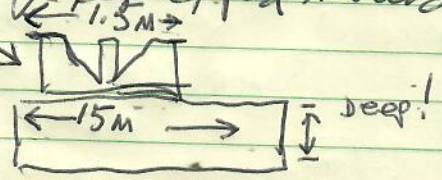
UAE 3 8-16 May 99

8 MAY 99 Saturday — 7AM UA FL934 depart Honolulu TO CA, CA 6 depart FL934 TO London (9+ hours), 1245pm LONDON 2pm depart EMIRATES FL. 2 7+ hours DUBAI about MIDNIGHT+ Lost bag - Samsonite white. Picked up by Saif's Pakistani Driver → 150+ km drive (fast) TO ABU DHABI

9 MAY 99 Sunday

10 MAY 99 Monday — Hilton Baynunah Tower Hotel - "Live in a Landmark" 2:30AM Rm 802. 4AM phoned home - CHRISTIAN. Slept TO ~7:3 930AM Breakfast at Hotel - Buffette, worked on Abstract for Malaysia Symposium. Call from Saif ~ noon. Delayed going to island due to Saudi visitor he is taking around. Lunch Buffet ~2pm. Dinner with Saif at Chi Chi Mexican Restaurant. 11PM-12 midnight walked ABU DHABI waterfront promenade. Slept 1AM - 7AM.

11 MAY 99 Tuesday — Hilton Baynunah Hotel - Breakfast Buff worked more on Abstract. Called home, 7PM Honolulu time, message left. Picked up at ~930AM by Saif's driver, TO Commerce building office - 10th floor. AMAC - Saif's Jordian secretary. FAXed 3 pages to Shaun - hawksbill report. TO UAE air base. Depart about 11AM - est. 45 min. TWIN ENGINE high wing Air Force cargo-type plane (Caribou?). TO Madray on Ta. Other people on plane going to another island oil facility island. Unloaded and plane took off right away. TO "Villa" (room of fire). Toured newly-built little rearing facility - near helipad, fed mound. 20 small tanks, 10 tanks



Photos

Drove to far end of island - Sooty Gulls eating "Swift" eggs - + Sooty Terns

Sheik SULTAN — "SAMAZIA IS." Ron Lough/and contract Aostralian worker
Short distance planning turtle Rearing.
As per Steve-
11 MAY 99 photos by fisherman's fish types as stages to retain Hatchlings, protect them from gulls.
Tues. Excellent example of local items being used in conversation
Left ~330 - 6:30pm
935pm Walked SW beach (South of Villa) encountered a hawksbill ashore just west of helicopter ground. No moon. She dug for awhile seemingly unaware of our lights/presence. Then crawled rapidly along beach, short time before we even noticed.
Drove turtle to Villa, set up on patio out back - turtle in Pedestal (covered back).
turned on at 130 PM HEAT OFF
Start ~10:30pm ST14 10512
Numerous Chelonibia testudinaria on carapace & head.
Peeled portions of carapace.
CCL = 69 cm x 62 cm
- Sanded/cleaned carapace
- Elastomer step ~1/3 bottle with 10 drops catalyst
- Trimmed Elastomer, Re-Sanded soiled part
- ANTENNA IS REVERSE ORIENTATION
- FIRST COAT Polyester Resin / MEK catalyst 70 drops / 3 oz Resin 4 wide pieces on sides, long one down the center. 1.5h to harden.
- Second Coat ~ 110 drops 2-3 oz - 3 cross strips
Dr. DAS & I walked full length SW beach. Saw hard new tracks all the way (right to left) across point, 2 digs, neither good. Tide seems high now ~ 1230 AM.
- THIRD COAT - Saifi's business card underneath 3 oz - 140 drops - 3 cross pieces over card, one full length, one cut in half to make two.
12 MAY 99 Wednesday - Kevlar cigar with long cross piece holding it down. Added more catalyst to jelly dripping resin in cup - back filling cigar area for better.

52 wednesday 10512 Deployment (Pentax all 5/11-5/12 105

12 MAY 99 / 2 cameras print

2 new ELAN 2e BUILT IN FLASH

2:15 AM Drove turtle to SW beach - video taken

(lots of car tracks on beach) RELEASE.

NAMED "Shamal" Small snip skin from each hind flipper - one for me, one taken by Steve (for NAEC ERWEDA geneticist. Need [redacted]

MARION D'ALOIA

Need Peter Dutton contact

Slept 3AM - 730AM.

Video - Dave/cover oil platforms - oil pollution just for seeing bowhead

12 MAY 99 Saw UAE CNN video.

Wednesday lunch 2pm

3:15PM, I set out walking around island shore line - found some recent (early AM) tracks a short distance from villa (near 2 existing cages). Photos of tracks. Climbed up mound - photos. To north end fresh track - return over rugged rocks. Sat in beach shelter ~ 4:45pm

Saw Hawksbill ashore to east circled nest cage. Photos new 35mm slide. watched for awhile - sun bright in sky. Turtle headed for water so I simply picked it up & carried off, carried to shelter shade - built a barrier in corner, line on flipper.

Drove (where car came) to Villa, started landing, clean

~ 6:45pm NAGNET OFF ON 1:30 of Tuesday

START

metal tags 541 INCONEL 542 L35 R35 through scales

"HAS young appearance"

10511 Deployment

CCL 70.5 cm x 63.0

2 snipes hind flippers for DNA

mine into salt

Video - "green the desert"
"SHAMAC" = wind
SHAMALS winter - North - IRAN
summer - from South

NAMED = "ALASARIA" (afternoon event)
10511

JAZIRAT QARNAYN

12 MAY 99 Two COATS of Polyester resin
Wednesday 1st = 4 wide pieces, 1 long down center
2nd = 3 cross pieces and under, castro sgar, cross piece
next. Kevlar in front.

Release - 11 PM - North end, lots of HINDFLIPPERS shuffling in
same like nesting turtle, many photos.

3 MAY 99 Slept Midnight TO ~ 5 AM
Thursday 6:15 am walked around island with DR. DAS and Steve BRITISH - starting
north from Villa - 5 places where turtles, or a turtle had come
ashore, but not nested. SUCCESSFULL 4 SCREENS along here. Walked to eastside
saw screens ~ 5. By Sherk's house - north end beach ~ 10 screens
along here. A fresh up down Track.

Depart ~ 1030 AM - Helicopter, UAE AIRFORCE 500 lbs (10 bags) of 452 protein
fish food off loaded, one hour trip to ABUDHABI. Flew over
"Grand Mosque" under construction. BATEEN AF BASE.

(need soft back Biblio) HIMANSU S DAS
Researcher, MERC. ERWDA, ABUDHABI

MERCEDES Drove to office of information TV for interview

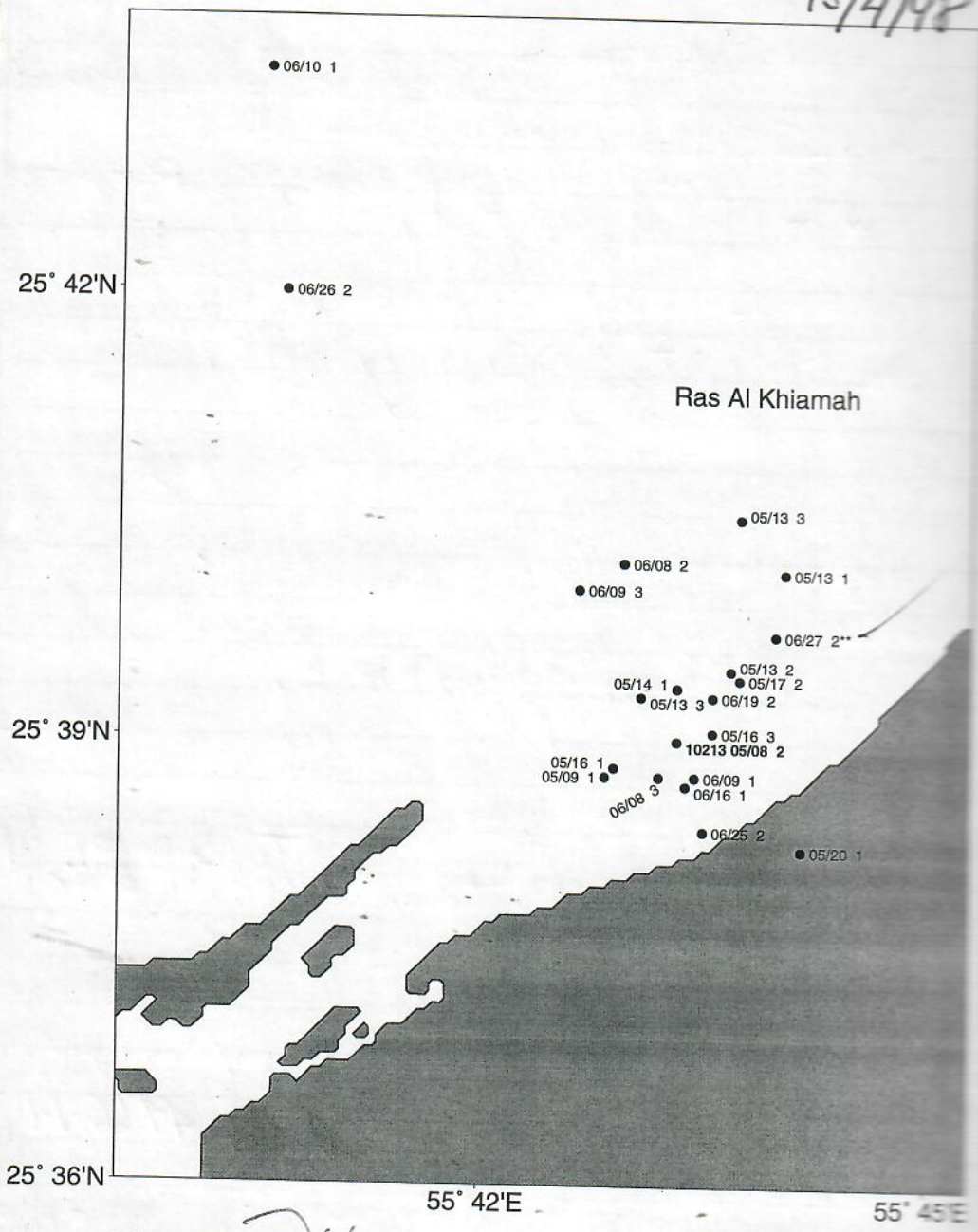
BIN MAJID Beach Resort TEL 446644 RAK

Sail had RE: Saudi visitor. ~ 1 hour. Drove to
Dubai. City Center Shopping. 5 pm RAMA Hotel - follow
TO R.A.K. The back route. Checked into RAK
Beach Resort - brand new outside of town.

14 MAY 99
FRIDAY Holy DAY so had to pay fishermen to fish. Ashore at
Sand Bay again 21 turtles - 2 escaped. All except 2
not or subadult, ADL. 4 TAGS each upon my advice (CONTINUED P.118)

Green Turtle 10213
United Arab Emirates

Deployed 5/4/98
10/4/98



** Last position plotted 6/27/98

GMT map created by Denise Ellis 7/1/98

TRANSMISSIONS TO 10/4/98

10213 Date : 30.04.98 22:27:14 LC : 3 IQ : 60
Lat1 : 24.925N Lon1 : 52.854E
186 00 00 00
00 00

10213 Date : 01.05.98 00:03:26 LC : 1 IQ : 68
Lat1 : 24.925N Lon1 : 52.863E
169 00 00 00
00 00

QARNAYAN ISLAND

10213 Date : 01.05.98 01:18:50 LC : 1 IQ : 68
Lat1 : 24.923N Lon1 : 52.851E
171 00 00 00
00 00

(ON the island)

10213 Date : 01.05.98 02:56:39 LC : 1 IQ : 58
Lat1 : 24.924N Lon1 : 52.868E
184 00 00 00
00 00

10213 Date : 01.05.98 04:01:00 LC : 1 IQ : 58
Lat1 : 24.938N Lon1 : 52.827E
206 00 00 00
00 00

10213 Date : 01.05.98 05:39:09 LC : 3 IQ : 64
Lat1 : 24.926N Lon1 : 52.854E
230 00 00 00
00 00

10213 Date : 04.05.98 01:48:36 LC : A IQ : 00
Lat1 : 25.760N Lon1 : 55.903E
175 00 00 00
00 00

AS AL KHAMAIT

10213 Date : 04.05.98 03:25:27 LC : B IQ : 00
Lat1 : 25.726N Lon1 : 55.827E
176 00 00 00
00 00

10213 Date : 04.05.98 14:47:02 LC : B IQ : 00
Lat1 : 25.738N Lon1 : 55.872E
185 427 75 61
00 00

10213 Date : 04.05.98 16:17:40 LC : Z IQ : 10
Lat1 : 25.851N Lon1 : 56.725E
184 669 75 61
00 00

10213 Date : 05.05.98 01:29:04 LC : B IQ : 00
Lat1 : 25.608N Lon1 : 55.704E
185 139 485
00 00

10213 Date : 05.05.98 16:01:56 LC : B IQ : 00
Lat1 : 25.598N Lon1 : 56.121E
185 567 216 97
00 00

10213 Date : 06.05.98 02:50:25 LC : B IQ : 00
Lat1 : 25.607N Lon1 : 56.188E
183 323 316 66
00 00

10213 Date : 06.05.98 10:28:54 LC : A IQ : 00
Lat1 : 25.639N Lon1 : 55.705E
189 192 215 98
00 00

10213 Date : 06.05.98 15:37:18 LC : B IQ : 00
Lat1 : 25.635N Lon1 : 55.719E
186 398 215 98
00 00

10213 Date : 06.05.98 15:52:36 LC : B IQ : 00
Lat1 : 25.648N Lon1 : 55.684E
186 437 215 98
00 00

10213 Date : 06.05.98 17:34:06 LC : B IQ : 00
Lat1 : 25.648N Lon1 : 55.748E
185 410 215 98
00 00

10213 Date : 07.05.98 15:47:48 LC : B IQ : 00
Lat1 : 25.638N Lon1 : 55.721E
188 526 227 93
00 00

10213 Date : 07.05.98 22:50:32 LC : B IQ : 00
Lat1 : 25.656N Lon1 : 55.726E
186 515 237 88
00 00

10213 Date : 08.05.98 05:53:45 LC : 2 IQ : 60
Lat1 : 25.650N Lon1 : 55.722E
191 23 237 88
00 00

10213 Date : 09.05.98 09:56:53 LC : 1 IQ : 50
Lat1 : 25.646N Lon1 : 55.714E
193 27 150 140
00 02

10213 Date : 09.05.98 22:25:42 LC : B IQ : 00
Lat1 : 25.660N Lon1 : 55.712E
190 438 159 131
00 00

10213 Date : 10.05.98 00:10:34 LC : B IQ : 00
Lat1 : 25.662N Lon1 : 55.715E
190 154 155 131
00 00

10213 Date : 10.05.98 03:02:20 LC : B IQ : 00
Lat1 : 25.647N Lon1 : 55.652E
189 323 159 131
00 00

10213 Date : 10.05.98 05:28:28 LC : A IQ : 00
Lat1 : 25.648N Lon1 : 55.722E
191 159 159 131
00 00

10213 Date : 10.05.98 09:45:19 LC : B IQ : 00
Lat1 : 25.647N Lon1 : 55.713E
194 197 146 143
00 00

10213 Date : 10.05.98 14:10:35 LC : B IQ : 00
Lat1 : 25.652N Lon1 : 55.686E
195 121 146 143
00 00

10213 Date : 10.05.98 15:04:13 LC : B IQ : 00
Lat1 : 25.654N Lon1 : 55.721E
195 187 146 143
00 00

10213 Date : 10.05.98 16:49:47 LC : B IQ : 00
Lat1 : 25.635N Lon1 : 55.762E
192 305 146 143
00 00

10213 Date : 10.05.98 23:54:36 LC : B IQ : 00
Lat1 : 25.656N Lon1 : 55.726E
192 412 166 124
00 00

10213 Date : 11.05.98 02:39:06 LC : B IQ : 00
Lat1 : 25.641N Lon1 : 55.911E
191 151 166 124
00 00

10213 Date : 12.05.98 11:00:20 LC : B IQ : 00
Lat1 : 25.628N Lon1 : 55.665E
195 169 178 116
00

10213 Date : 12.05.98 13:29:53 LC : B IQ : 00
Lat1 : 25.647N Lon1 : 55.693E
196 108 178 116
00 00

10213 Date : 12.05.98 16:19:01 LC : B IQ : 00
Lat1 : 25.740N Lon1 : 55.963E
195 170 178 116
00 01

10213 Date : 12.05.98 23:36:17 LC : A IQ : 00
Lat1 : 25.658N Lon1 : 55.732E
192 369 162 127
00 00

10213 Date : 13.05.98 01:54:27 LC : 2 IQ : 60
Lat1 : 25.658N Lon1 : 55.728E
193 79 162 127
00 00

10213 Date : 13.05.98 13:04:21 LC : 3 IQ : 68
Lat1 : 25.655N Lon1 : 55.718E
196 32 136 153
00 00

10213 Date : 13.05.98 14:45:18 LC : 3 IQ : 60
Lat1 : 25.675N Lon1 : 55.729E
195 24 136 137
00 01

10213 Date : 13.05.98 21:42:42 LC : A IQ : 08
Lat1 : 25.668N Lon1 : 55.729E
191 588 119 170
00 00

10213 Date : 13.05.98 23:24:18 LC : 1 IQ : 60
Lat1 : 25.669N Lon1 : 55.734E
191 183 119 170
00 00

10213 Date : 14.05.98 01:29:20 LC : A IQ : 08
Lat1 : 25.665N Lon1 : 55.725E
193 58 119 138
01 01

10213 Date : 14.05.98 04:38:17 LC : 1 IQ : 58
Lat1 : 25.656N Lon1 : 55.722E
193 143 119 170

10213 Date : 15.05.98 10:31:21 LC : B IQ : 00
Lat1 : 25.647N Lon1 : 55.726E
196 153 144 144

10213 Date : 15.05.98 12:21:21 LC : B IQ : 00
Lat1 : 25.646N Lon1 : 55.719E
196 169 144 34960

10213 Date : 15.05.98 14:02:26 LC : B IQ : 00
Lat1 : 25.642N Lon1 : 55.711E
196 148 144 144

10213 Date : 15.05.98 23:04:09 LC : B IQ : 00
Lat1 : 25.647N Lon1 : 55.737E
193 344 161 129

10213 Date : 16.05.98 10:20:03 LC : B IQ : 00
Lat1 : 25.642N Lon1 : 55.716E
196 263 221

10213 Date : 16.05.98 11:58:38 LC : B IQ : 00
Lat1 : 25.643N Lon1 : 55.719E
196 166 221 94
00 00

10213 Date : 16.05.98 13:38:17 LC : 1 IQ : 50
Lat1 : 25.647N Lon1 : 55.715E
196 91 221 94

10213 Date : 16.05.98 17:11:32 LC : 3 IQ : 68
Lat1 : 25.651N Lon1 : 55.726E
195 36 221 94

10213 Date : 17.05.98 02:04:49 LC : B IQ : 00
Lat1 : 25.661N Lon1 : 55.727E
192 37 137 150

10213 Date : 17.05.98 04:01:15 LC : 2 IQ : 68
Lat1 : 25.657N Lon1 : 55.729E
193 40 137 150

10213 Date : 17.05.98 05:41:33 LC : B IQ : 00
Lat1 : 25.657N Lon1 : 55.726E
194 48 137 150

10213 Date : 17.05.98 10:08:28 LC : B IQ : 00
Lat1 : 25.655N Lon1 : 55.709E
196 129 186 111

10213 Date : 17.05.98 11:47:35 LC : B IQ : 00
Lat1 : 25.654N Lon1 : 55.703E
196 217 186 111

10213 Date : 17.05.98 13:17:21 LC : B IQ : 00
Lat1 : 25.655N Lon1 : 55.716E
196 167 186 111

10213 Date : 17.05.98 14:54:42 LC : B IQ : 00
Lat1 : 25.645N Lon1 : 55.695E
195 111 186 111

10213 Date : 17.05.98 16:57:49 LC : A IQ : 00
Lat1 : 25.644N Lon1 : 55.728E
196 274 186 111

10213 Date : 17.05.98 22:37:56 LC : B IQ : 00
Lat1 : 25.656N Lon1 : 55.705E
193 324 156 130

10213 Date : 18.05.98 09:57:44 LC : B IQ : 00
Lat1 : 25.639N Lon1 : 55.713E
196 141 162 127

10213 Date : 18.05.98 12:53:28 LC : B IQ : 00
Lat1 : 25.641N Lon1 : 55.721E
195 134 162 127

10213 Date : 18.05.98 14:30:46 LC : B IQ : 00
Lat1 : 25.714N Lon1 : 55.781E
195 240 162 127

10213 Date : 18.05.98 15:07:35 LC : B IQ : 00
Lat1 : 25.626N Lon1 : 55.731E
194 195 162 127
00 00

10213 Date : 18.05.98 16:41:36 LC : B IQ : 00
Lat1 : 25.740N Lon1 : 55.799E
194 281 162

10213 Date : 19.05.98 01:24:07 LC : B IQ : 00
Lat1 : 25.648N Lon1 : 55.764E
192 167 211

10213 Date : 19.05.98 09:43:37 LC : B IQ : 00
Lat1 : 25.636N Lon1 : 55.710E
195 131 182 32840
01 49

10213 Date : 19.05.98 16:38:21 LC : B IQ : 00
Lat1 : 25.621N Lon1 : 55.624E
193 326 214 96
00 00

10213 Date : 20.05.98 11:13:32 LC : B IQ : 00
Lat1 : 25.649N Lon1 : 55.757E
195 101 191

10213 Date : 20.05.98 22:05:00 LC : B IQ : 00
Lat1 : 25.667N Lon1 : 55.711E
192 100 176

10213 Date : 20.05.98 23:48:57 LC : 1 IQ : 50
Lat1 : 25.638N Lon1 : 55.736E
191 47 176

10213 Date : 21.05.98 02:18:30 LC : A IQ : 00
Lat1 : 25.645N Lon1 : 55.714E
191 175 176

10213 Date : 21.05.98 04:52:37 LC : B IQ : 00
Lat1 : 25.597N Lon1 : 55.691E
192 192 144

10213 Date : 21.05.98 16:09:56 LC : B IQ : 00
Lat1 : 25.648N Lon1 : 55.717E
194 321 162

10213 Date : 22.05.98 04:39:55 LC : A IQ : 00
Lat1 : 25.637N Lon1 : 55.708E
193 201 200 102

10213 Date : 21.05.98 13:29:30 LC : B IQ : 00
Lat1 : 25.665N Lon1 : 55.712E
194 140 162 128
00 00

10213 Date : 22.05.98 13:05:40 LC : B IQ : 00
Lat1 : 25.659N Lon1 : 55.731E
195 161 207 100

10213 Date : 22.05.98 14:48:43 LC : B IQ : 00
Lat1 : 25.650N Lon1 : 55.726E
194 125 207 100

10213 Date : 22.05.98 21:41:52 LC : B IQ : 00
Lat1 : 25.644N Lon1 : 55.717E
192 365 195 104

10213 Date : 23.05.98 15:45:22 LC : A IQ : 00
Lat1 : 25.674N Lon1 : 55.698E
194 2341 2749 109
00 04
10213 Date : 23.05.98 17:22:20 LC : B IQ : 00
Lat1 : 25.656N Lon1 : 55.718E
193 368 189 109
10213 Date : 23.05.98 23:17:50 LC : B IQ : 00
Lat1 : 25.645N Lon1 : 55.770E
192 380 216 95
10213 Date : 24.05.98 00:57:08 LC : B IQ : 00
Lat1 : 25.661N Lon1 : 55.711E
192 405 216 95
10213 Date : 24.05.98 10:31:56 LC : B IQ : 00
Lat1 : 25.662N Lon1 : 55.710E
195 1120 222 93
10213 Date : 24.05.98 14:03:06 LC : B IQ : 00
Lat1 : 25.666N Lon1 : 55.732E
196 118 222 93
10213 Date : 24.05.98 15:31:23 LC : B IQ : 00
Lat1 : 25.651N Lon1 : 55.721E
195 287 222 93
10213 Date : 24.05.98 23:04:13 LC : B IQ : 00
Lat1 : 25.672N Lon1 : 55.706E
193 387 265 77
00 08
10213 Date : 25.05.98 10:22:17 LC : B IQ : 00
Lat1 : 25.661N Lon1 : 55.669E
196 138 214 97
10213 Date : 26.05.98 15:10:45 LC : B IQ : 00
Lat1 : 25.677N Lon1 : 55.698E
194 210 398 53
10213 Date : 27.05.98 01:46:33 LC : B IQ : 00
Lat1 : 25.674N Lon1 : 55.711E
194 293 510 42
10213 Date : 27.05.98 03:23:57 LC : A IQ : 00
Lat1 : 25.660N Lon1 : 55.729E
193 71 510 42
10213 Date : 27.05.98 09:57:49 LC : B IQ : 00
Lat1 : 25.666N Lon1 : 55.726E
00 1459 295 72
00 26
10213 Date : 27.05.98 14:34:38 LC : B IQ : 00
Lat1 : 25.639N Lon1 : 55.694E
198 175 295 72
10213 Date : 27.05.98 14:56:39 LC : B IQ : 00
Lat1 : 25.652N Lon1 : 55.719E
198 129 295 72
10213 Date : 27.05.98 22:27:37 LC : A IQ : 00
Lat1 : 25.647N Lon1 : 55.722E
196 110 303 70

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10213  Date : 28.05.98 01:19:24  LC : B  IQ : 00
       Lat1 : 25.668N  Lon1 :  55.728E
195          1284          303          70
10213  Date : 29.05.98 13:51:41  LC : B  IQ : 00
       Lat1 : 25.650N  Lon1 :  55.748E
199          186          493          43
10213  Date : 29.05.98 22:11:37  LC : B  IQ : 00
       Lat1 : 25.666N  Lon1 :  55.705E
197          395          249          84
10213  Date : 30.05.98 02:11:58  LC : B  IQ : 00
       Lat1 : 25.710N  Lon1 :  55.762E
196          1486          249          84
10213  Date : 30.05.98 04:01:03  LC : B  IQ : 00
       Lat1 : 25.675N  Lon1 :  55.756E
196          525          249          84
10213  Date : 30.05.98 04:40:32  LC : 0  IQ : 50
       Lat1 : 25.665N  Lon1 :  55.734E
196          331          249          84
10213  Date : 30.05.98 11:04:11  LC : A  IQ : 08
       Lat1 : 25.639N  Lon1 :  55.727E
199          109          341          61
10213  Date : 30.05.98 13:30:15  LC : A  IQ : 08
       Lat1 : 25.621N  Lon1 :  55.724E
198          46848          7685          41273
02          46
10213  Date : 30.05.98 15:59:26  LC : B  IQ : 00
       Lat1 : 25.636N  Lon1 :  55.736E
199          577          341          61
00          01
10213  Date : 30.05.98 23:40:21  LC : B  IQ : 00
       Lat1 : 25.651N  Lon1 :  55.665E
196          533          219          95
10213  Date : 31.05.98 15:43:16  LC : B  IQ : 00
       Lat1 : 25.633N  Lon1 :  55.688E
197          398          319          65
10213  Date : 31.05.98 23:19:30  LC : B  IQ : 00
       Lat1 : 25.414N  Lon1 :  56.059E
196          581          260          81
10213  Date : 01.06.98 12:47:34  LC : B  IQ : 00
       Lat1 : 25.608N  Lon1 :  55.740E
197          350          348          60
00          01
10213  Date : 01.06.98 15:31:55  LC : A  IQ : 00
       Lat1 : 25.670N  Lon1 :  55.752E
196          05          348          60
00          01
10213  Date : 03.06.98 04:11:16  LC : A  IQ : 00
       Lat1 : 25.674N  Lon1 :  55.713E
196          61          338          63
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10213 Date : 02.06.98 17:05:09 LC : B IQ : 00
Lat1 : 25.641N Lon1 : 55.663E
197 810 265 79
00 01

10213 Date : 03.06.98 13:42:12 LC : A IQ : 08
Lat1 : 25.641N Lon1 : 55.723E
199 113 240 87
00 01

10213 Date : 04.06.98 03:37:47 LC : A IQ : 00
Lat1 : 25.639N Lon1 : 55.719E
196 45 220 96

10213 Date : 04.06.98 05:18:21 LC : A IQ : 08
Lat1 : 25.656N Lon1 : 55.724E
197 113 220 96

10213 Date : 05.06.98 00:25:41 LC : B IQ : 00
Lat1 : 25.637N Lon1 : 55.759E
198 431 268 79

10213 Date : 05.06.98 01:46:25 LC : B IQ : 00
Lat1 : 25.647N Lon1 : 55.701E
198 246 268 79

10213 Date : 05.06.98 03:27:01 LC : B IQ : 00
Lat1 : 25.634N Lon1 : 55.730E
198 09 268 79
00 01

10213 Date : 05.06.98 22:29:11 LC : B IQ : 00
Lat1 : 25.637N Lon1 : 55.735E
200 419 254 83

10213 Date : 06.06.98 00:15:23 LC : B IQ : 00
Lat1 : 25.663N Lon1 : 55.830E
199 417 254 83
00 01

10213 Date : 06.06.98 03:04:03 LC : B IQ : 00
Lat1 : 25.548N Lon1 : 55.696E
199 229 254 83

10213 Date : 06.06.98 11:27:10 LC : B IQ : 00
Lat1 : 25.702N Lon1 : 55.622E
199 173 257 81

10213 Date : 06.06.98 14:13:30 LC : B IQ : 00
Lat1 : 25.585N Lon1 : 55.543E
198 441 257 81

10213 Date : 06.06.98 17:55:04 LC : B IQ : 00
Lat1 : 25.667N Lon1 : 55.707E
198 792 257 81

10213 Date : 07.06.98 00:05:25 LC : B IQ : 00
Lat1 : 25.763N Lon1 : 55.832E
196 1208 344

10213 Date : 07.06.98 01:02:01 LC : B IQ : 00
Lat1 : 25.662N Lon1 : 55.689E
196 543 344 59

10213 Date : 07.06.98 04:41:49 LC : B IQ : 00
Lat1 : 25.657N Lon1 : 55.730E
200 179 344 59

10213 Date : 07.06.98 11:13:31 LC : B IQ : 00
Lat1 : 25.539N Lon1 : 55.549E
203 111 214 98

10213 Date : 07.06.98 13:55:01 LC : B IQ : 00
Lat1 : 25.708N Lon1 : 55.699E
200 122 214

10213 Date : 07.06.98 15:38:50 LC : B IQ : 00
Lat1 : 25.708N Lon1 : 55.702E
198 856 210 1122
00 24

10213 Date : 07.06.98 22:05:54 LC : 0 IQ : 60
Lat1 : 25.662N Lon1 : 55.738E
196 1102 274 76

10213 Date : 08.06.98 02:21:25 LC : A IQ : 00
Lat1 : 25.672N Lon1 : 55.717E
199 115 274 76

10213 Date : 08.06.98 04:29:57 LC : 3 IQ : 68
Lat1 : 25.646N Lon1 : 55.720E
200 79 274

10213 Date : 08.06.98 11:05:00 LC : 2 IQ : 58
Lat1 : 25.670N Lon1 : 55.716E
203 135 197

10213 Date : 08.06.98 23:44:03 LC : B IQ : 00
Lat1 : 25.650N Lon1 : 55.232E
192 1373 210 100

10213 Date : 09.06.98 03:42:55 LC : B IQ : 00
Lat1 : 25.697N Lon1 : 55.495E
191 736 210 100

10213 Date : 09.06.98 05:59:23 LC : A IQ : 00
Lat1 : 25.672N Lon1 : 55.703E
199 24 210

10213 Date : 09.06.98 10:54:01 LC : 1 IQ : 58
Lat1 : 25.646N Lon1 : 55.724E
204 74 219 95

10213 Date : 09.06.98 13:11:40 LC : 3 IQ : 60
Lat1 : 25.667N Lon1 : 55.711E
204 63 219

10213 Date : 09.06.98 14:48:10 LC : B IQ : 00
Lat1 : 25.685N Lon1 : 55.722E
202 79 219 95

10213 Date : 09.06.98 15:32:32 LC : A IQ : 08
Lat1 : 25.682N Lon1 : 55.673E
200 29 219 95

10213 Date : 10.06.98 01:37:31 LC : A IQ : 00
Lat1 : 25.698N Lon1 : 55.638E
189 742 189 111

10213 Date : 10.06.98 03:13:19 LC : A IQ : 00
Lat1 : 25.711N Lon1 : 55.697E
190 698 189 111

10213 Date : 10.06.98 10:42:45 LC : Z IQ : 10
Lat1 : 25.904N Lon1 : 56.453E
194 979 749 27

10213 Date : 10.06.98 12:54:07 LC : B IQ : 00
Lat1 : 25.799N Lon1 : 55.798E
194 680 749

10213 Date : 10.06.98 17:00:55 LC : 1 IQ : 60
Lat1 : 25.725N Lon1 : 55.676E
190 1170 749 27

10213 Date : 11.06.98 03:53:50 LC : B IQ : 00
Lat1 : 25.777N Lon1 : 55.800E
193 708 920 22

10213 Date : 11.06.98 10:33:53 LC : A IQ : 00
Lat1 : 25.659N Lon1 : 55.693E
202 92 290 71
00 01

10213 Date : 11.06.98 15:08:38 LC : B IQ : 00
Lat1 : 25.645N Lon1 : 55.726E
202 210 290 71

10213 Date : 11.06.98 16:49:19 LC : B IQ : 00
Lat1 : 25.646N Lon1 : 55.721E
201 224 290 71

10213 Date : 11.06.98 23:07:18 LC : B IQ : 00
Lat1 : 25.651N Lon1 : 55.748E
201 4345 5283 20655
00 16

10213 Date : 12.06.98 03:40:14 LC : B IQ : 00
Lat1 : 25.665N Lon1 : 55.738E
199 155 147 143

10213 Date : 12.06.98 05:19:51 LC : B IQ : 00
Lat1 : 25.687N Lon1 : 55.758E
199 215 147 399

10213 Date : 12.06.98 16:34:21 LC : B IQ : 00
Lat1 : 25.708N Lon1 : 55.778E
201 333 198 105

10213 Date : 13.06.98 10:07:28 LC : B IQ : 00
Lat1 : 25.622N Lon1 : 55.790E
219 248 172 8313

10213 Date : 13.06.98 13:20:45 LC : B IQ : 00
Lat1 : 25.655N Lon1 : 55.748E
204 167 172 121

10213 Date : 13.06.98 14:45:15 LC : B IQ : 00
Lat1 : 25.653N Lon1 : 55.714E
234 41053 141 14369
02 36

10213 Date : 13.06.98 15:02:36 LC : B IQ : 00
Lat1 : 25.657N Lon1 : 55.730E
203 168 172 121

10213 Date : 13.06.98 16:21:40 LC : B IQ : 00
Lat1 : 25.662N Lon1 : 55.786E
202 272 172 121

10213 Date : 13.06.98 22:37:54 LC : B IQ : 00
Lat1 : 25.611N Lon1 : 55.667E
201 349 152 648

10213 Date : 14.06.98 01:48:17 LC : B IQ : 00
Lat1 : 25.664N Lon1 : 55.730E
200 197 152 136

10213 Date : 14.06.98 03:30:58 LC : B IQ : 00
Lat1 : 25.661N Lon1 : 55.705E
200 100 152 136

10213 Date : 14.06.98 04:57:11 LC : A IQ : 00
Lat1 : 24.293N Lon1 : 61.925E (Lat2 : 25.648N Lon2 : 55
200 106 152 136

10213 Date : 14.06.98 10:01:18 LC : B IQ : 00
Lat1 : 25.653N Lon1 : 55.713E
203 105 171 120

10213 Date : 14.06.98 13:00:51 LC : B IQ : 00
Lat1 : 25.641N Lon1 : 55.721E
203 208 171 120

10213 Date : 14.06.98 14:40:50 LC : A IQ : 08
Lat1 : 25.664N Lon1 : 55.728E
203 81 171 120

10213 Date : 14.06.98 22:35:22 LC : B IQ : 00
Lat1 : 25.636N Lon1 : 55.760E
201 365 170 122

10213 Date : 15.06.98 00:10:12 LC : B IQ : 00
Lat1 : 25.658N Lon1 : 55.734E
200 376 170 122

10213 Date : 15.06.98 03:07:50 LC : B IQ : 00
Lat1 : 25.662N Lon1 : 55.697E
199 330 170

10213 Date : 15.06.98 09:50:31 LC : A IQ : 00
Lat1 : 25.646N Lon1 : 55.725E
203 182 184 111

10213 Date : 15.06.98 15:59:17 LC : B IQ : 00
Lat1 : 25.642N Lon1 : 55.710E
202 279 184 111

10213 Date : 15.06.98 22:22:23 LC : A IQ : 00
Lat1 : 25.642N Lon1 : 55.675E
200 07 187 108

10213 Date : 16.06.98 00:04:26 LC : B IQ : 00
Lat1 : 25.660N Lon1 : 55.697E
200 455 187 108

10213 Date : 16.06.98 04:28:01 LC : B IQ : 00
Lat1 : 25.669N Lon1 : 55.699E
199 122 187

10213 Date : 16.06.98 13:56:12 LC : B IQ : 00
Lat1 : 25.550N Lon1 : 55.650E
202 287 204 100

10213 Date : 16.06.98 15:48:46 LC : B IQ : 00
Lat1 : 25.669N Lon1 : 55.708E
201 262 204 100

10213 Date : 16.06.98 17:25:42 LC : B IQ : 00
Lat1 : 25.658N Lon1 : 55.702E
201 250 204 100

10213 Date : 16.06.98 23:50:03 LC : 1 IQ : 60
Lat1 : 25.645N Lon1 : 55.723E
200 330 33958 16499
00 04

10213 Date : 17.06.98 02:24:15 LC : B IQ : 00
Lat1 : 25.649N Lon1 : 55.742E
200 221 182 115

10213 Date : 17.06.98 05:58:21 LC : B IQ : 00
Lat1 : 25.677N Lon1 : 55.732E
199 4238 182 119

10213 Date : 17.06.98 13:37:36 LC : B IQ : 00
Lat1 : 25.640N Lon1 : 55.695E
202 375 179 115

10213 Date : 17.06.98 17:11:19 LC : A IQ : 08
Lat1 : 25.573N Lon1 : 55.526E
201 512 179 115

10213 Date : 17.06.98 21:55:19 LC : A IQ : 00
Lat1 : 25.660N Lon1 : 55.723E
201 67 182 115

10213 Date : 17.06.98 23:41:30 LC : A IQ : 00
Lat1 : 25.637N Lon1 : 55.738E
200 05 182 115
00 01

10213 Date : 18.06.98 17:01:00 LC : B IQ : 00
Lat1 : 25.668N Lon1 : 55.722E
202 416 174 120

10213 Date : 18.06.98 21:47:00 LC : A IQ : 00
Lat1 : 25.643N Lon1 : 55.724E
201 75 201 103

10213 Date : 19.06.98 01:38:22 LC : A IQ : 08
Lat1 : 25.651N Lon1 : 55.724E
201 76 201 103

10213 Date : 19.06.98 03:18:48 LC : B IQ : 00
Lat1 : 25.646N Lon1 : 55.721E
201 286 201 103

10213 Date : 19.06.98 05:32:08 LC : 2 IQ : 58
Lat1 : 25.655N Lon1 : 55.726E
202 114 201 103

10213 Date : 19.06.98 10:44:19 LC : B IQ : 00
Lat1 : 25.570N Lon1 : 55.367E
204 165 184 114

10213 Date : 19.06.98 12:50:23 LC : B IQ : 00
Lat1 : 25.655N Lon1 : 55.727E
204 209 184 114

10213 Date : 19.06.98 16:48:11 LC : A IQ : 08
Lat1 : 25.643N Lon1 : 55.723E
203 146 184 114

10213 Date : 19.06.98 23:19:40 LC : B IQ : 00
Lat1 : 25.556N Lon1 : 56.155E
202 382 203 102
00 01

10213 Date : 20.06.98 01:13:44 LC : B IQ : 00
Lat1 : 25.660N Lon1 : 55.707E
202 224 203 102

10213 Date : 20.06.98 02:55:01 LC : B IQ : 00
Lat1 : 25.665N Lon1 : 55.745E
202 386 203 102
00 01

10213 Date : 20.06.98 05:20:36 LC : B IQ : 00
Lat1 : 25.702N Lon1 : 55.745E
202 100 203

10213 Date : 20.06.98 14:07:16 LC : B IQ : 00
Lat1 : 25.635N Lon1 : 55.672E
205 207 177 117

10213 Date : 20.06.98 14:58:09 LC : B IQ : 00
Lat1 : 25.645N Lon1 : 55.722E
204 210 177 117

10213 Date : 20.06.98 23:04:39 LC : A IQ : 00
Lat1 : 25.649N Lon1 : 55.730E
201 413 194 106

10213 Date : 21.06.98 02:32:14 LC : B IQ : 00
Lat1 : 25.743N Lon1 : 55.495E
201 327 194 106

10213 Date : 22.06.98 16:17:22 LC : Z IQ : 10
Lat1 : 25.881N Lon1 : 55.868E
196 07 196 108
00 01

10213 Date : 22.06.98 22:37:53 LC : 0 IQ : 50
Lat1 : 25.559N Lon1 : 55.282E
193 1558 231 90

10213 Date : 23.06.98 01:45:21 LC : A IQ : 00
Lat1 : 25.743N Lon1 : 55.804E
191 913 231 90

10213 Date : 23.06.98 11:42:00 LC : A IQ : 00
Lat1 : 25.659N Lon1 : 55.733E
204 75 275 75

10213 Date : 23.06.98 14:42:10 LC : A IQ : 08
Lat1 : 25.679N Lon1 : 55.715E
203 151 275 75

10213 Date : 23.06.98 22:32:36 LC : A IQ : 08
Lat1 : 25.676N Lon1 : 55.644E
196 965 163 129

10213 Date : 24.06.98 01:28:01 LC : A IQ : 08
Lat1 : 25.661N Lon1 : 55.646E
194 609 163 129

10213 Date : 24.06.98 09:52:30 LC : B IQ : 00
Lat1 : 25.653N Lon1 : 55.577E
203 276 297 70

10213 Date : 24.06.98 14:19:01 LC : A IQ : 00
Lat1 : 25.666N Lon1 : 55.724E
203 100 297 70

10213 Date : 24.06.98 15:47:26 LC : B IQ : 00
Lat1 : 25.676N Lon1 : 55.711E
203 76 297 70

10213 Date : 24.06.98 22:23:45 LC : 0 IQ : 58
Lat1 : 25.689N Lon1 : 55.624E
198 07 163 128

10213 Date : 25.06.98 00:00:19 LC : B IQ : 00
Lat1 : 25.684N Lon1 : 55.683E
199 616 163 128

10213 Date : 25.06.98 05:59:43 LC : A IQ : 00
Lat1 : 25.670N Lon1 : 55.708E
201 61 163 128

10213 Date : 25.06.98 09:38:00 LC : 2 IQ : 68
Lat1 : 25.640N Lon1 : 55.725E
202 22 1152 16488
02 00

10213 Date : 25.06.98 11:20:02 LC : B IQ : 00
Lat1 : 25.677N Lon1 : 55.718E
203 239 201 104

10213 Date : 25.06.98 14:37:06 LC : B IQ : 00
Lat1 : 25.671N Lon1 : 55.691E
203 151 201 104

10213 Date : 25.06.98 15:35:38 LC : B IQ : 00
Lat1 : 25.686N Lon1 : 55.695E
203 132 201 104
00 01

10213 Date : 25.06.98 23:45:15 LC : B IQ : 00
Lat1 : 25.477N Lon1 : 55.826E
196 871 205 102

10213 Date : 26.06.98 04:04:36 LC : B IQ : 00
Lat1 : 25.719N Lon1 : 55.711E
200 251 205 102

10213 Date : 26.06.98 04:07:19 LC : B IQ : 00
Lat1 : 25.707N Lon1 : 55.736E
200 63 205 102

10213 Date : 26.06.98 11:08:01 LC : A IQ : 00
Lat1 : 25.647N Lon1 : 55.724E
204 36 159 131

10213 Date : 26.06.98 15:15:06 LC : 2 IQ : 68
Lat1 : 25.700N Lon1 : 55.678E
202 43 159 131
00 01

10213 Date : 26.06.98 15:21:47 LC : B IQ : 00
Lat1 : 25.698N Lon1 : 55.683E
202 40 159 131

10213 Date : 26.06.98 15:57:17 LC : A IQ : 08
Lat1 : 25.712N Lon1 : 55.689E
201 497 159 [illegible]

10213 Date : 26.06.98 23:36:00 LC : 0 IQ : 68
Lat1 : 25.712N Lon1 : 55.651E
197 1305 151 137

10213 Date : 27.06.98 02:39:25 LC : A IQ : 08
Lat1 : 25.669N Lon1 : 55.726E
200 20 151 137

10213 Date : 27.06.98 03:41:49 LC : B IQ : 00
Lat1 : 25.702N Lon1 : 55.709E
201 65 151 137

10213 Date : 27.06.98 03:53:51 LC : A IQ : 60
Lat1 : 25.688N Lon1 : 55.702E
201 35 151 137

10213 Date : 27.06.98 04:22:51 LC : A IQ : 00
Lat1 : 25.682N Lon1 : 55.721E
202 111 151 137

10213 Date : 27.06.98 05:33:58 LC : 2 IQ : 58
Lat1 : 25.662N Lon1 : 55.733E
203 89 151 137

10213 Date : 27.06.98 10:56:19 LC : B IQ : 00
Lat1 : 25.651N Lon1 : 55.630E
205 185 177 118

10213 Date : 27.06.98 13:16:11 LC : B IQ : 00
Lat1 : 25.670N Lon1 : 55.692E
204 94 177 118

10213 Date : 27.06.98 23:32:31 LC : B IQ : 00
Lat1 : 25.684N Lon1 : 55.676E
202 63 186 111

10213 Date : 28.06.98 02:19:14 LC : A IQ : 00
Lat1 : 25.647N Lon1 : 55.715E
203 16427 190 111

10213 Date : 28.06.98 03:38:51 LC : B IQ : 00
Lat1 : 25.654N Lon1 : 55.725E
202 75 186 111

10213 Date : 28.06.98 05:23:23 LC : B IQ : 00
Lat1 : 25.650N Lon1 : 55.733E
203 261 186 111

10213 Date : 28.06.98 15:11:47 LC : B IQ : 00
Lat1 : 25.732N Lon1 : 55.712E
204 140 136 156

10213 Date : 28.06.98 23:12:15 LC : Z IQ : 10
Lat1 : 25.725N Lon1 : 55.560E
201 864 403 142
01 00

10213 Date : 29.06.98 02:57:29 LC : A IQ : 00
Lat1 : 25.687N Lon1 : 55.699E
202 101 147

10213 Date : 29.06.98 03:38:46 LC : A IQ : 08
Lat1 : 25.684N Lon1 : 55.695E
203 140 147 142

see p.54 need to plot

10213 Date : 29.06.98 05:09:35 LC : 0 IQ : 58
Lat1 : 25.690N Lon1 : 55.581E
204 150 147 142
00 01

10213 Date : 30.06.98 02:35:48 LC : 0 IQ : 60
Lat1 : 25.711N Lon1 : 55.663E
201 32 187 111

10213 Date : 30.06.98 04:54:48 LC : B IQ : 00
Lat1 : 25.732N Lon1 : 55.635E
199 819 187 111

10213 Date : 30.06.98 13:42:03 LC : B IQ : 00
Lat1 : 25.679N Lon1 : 55.352E
194 1027 352 58

10213 Date : 30.06.98 14:31:14 LC : A IQ : 00
Lat1 : 25.731N Lon1 : 55.644E
194 920 352 58

10213 Date : 30.06.98 17:50:27 LC : 0 IQ : 60
Lat1 : 25.732N Lon1 : 55.680E
194 06 352 58

10213 Date : 01.07.98 02:18:29 LC : 0 IQ : 60
Lat1 : 25.847N Lon1 : 55.516E
194 1074 923 22

10213 Date : 01.07.98 02:52:30 LC : B IQ : 00
Lat1 : 25.749N Lon1 : 55.606E
196 76 923 22

10213 Date : 01.07.98 04:35:23 LC : A IQ : 00
Lat1 : 25.702N Lon1 : 55.722E
197 610 923 22

10213 Date : 01.07.98 10:16:43 LC : A IQ : 00
Lat1 : 25.720N Lon1 : 55.706E
203 52 546 37

10213 Date : 01.07.98 11:52:01 LC : A IQ : 00
Lat1 : 25.703N Lon1 : 55.644E
203 08 546 37

10213 Date : 01.07.98 16:00:43 LC : A IQ : 00
Lat1 : 25.719N Lon1 : 55.661E
197 1329 546 37

10213 Date : 02.07.98 00:27:57 LC : B IQ : 00
Lat1 : 25.732N Lon1 : 55.656E
64 1148 33353 44171
00 62

3 Date : 02.07.98 01:54:01 LC : A IQ : 00
Lat1 : 21.167N Lon1 : 77.264E (Lat2 : 25.699N Lon2 : 55.700E)
02 66 524 39

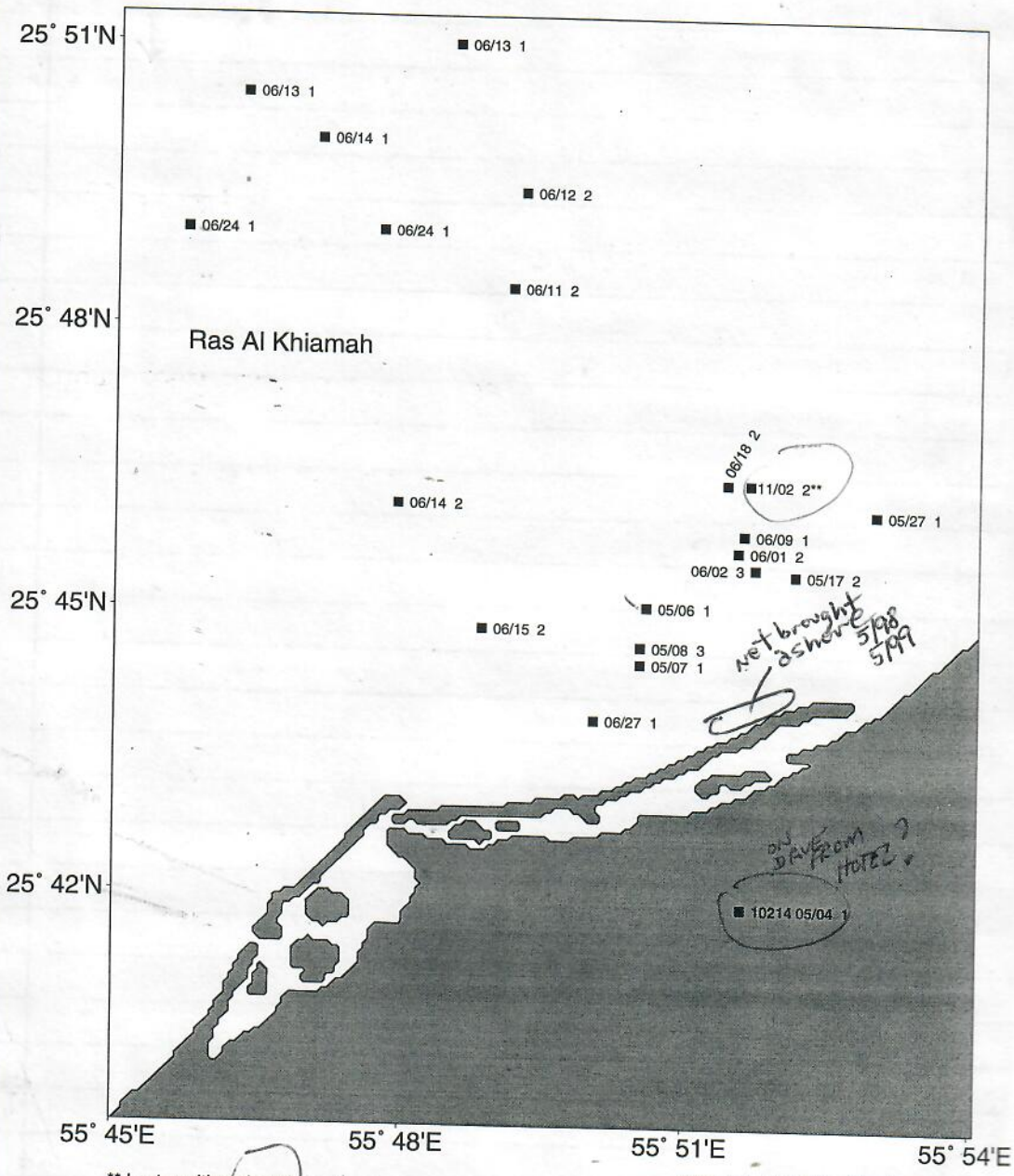
10213 Date : 02.07.98 03:31:28 LC : A IQ : 08
Lat1 : 25.672N Lon1 : 55.720E
203 60 524 39

10213 Date : 02.07.98 04:12:30 LC : B IQ : 00
Lat1 : 25.648N Lon1 : 55.750E
203 32885 524 39

TO P. 105

Green Turtle 10214
United Arab Emirates

Deployed 5/4/98



** Last position plotted 11/2/98

GMT map created by Denise Ellis 11/05/98

TRANSMISSION TO 1/6/99