



# Medical and Evacuation Procedures Madagascar 2020

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# 1. Introduction

## Medical Screening, SSI and Insurance

### Medical screening

As with all expeditions careful planning is essential to ensure that all individuals enjoy a safe successful trip. Some members of the expedition team (including all volunteers and staff) may have significant pre-existing health problems or disabilities, which in the field, could potentially lead to problems.

### Medical questionnaire

All participants will be required to complete a medical questionnaire prior to their departure through an online portal page. The link to the online portal will be included in the electronic expedition confirmation pack that is set out to all volunteers. This information will then be available to medics prior to the season so they are able to discuss any implications to the site medical kit or the individual's itinerary. This medical information is also sent out to the field to the expedition medical coordinator in advance of the expeditions, so they are fully aware of any potential health problems and any precautions they should implement on site.

### SSI

All those who are diving during the expedition will be required to complete a SSI (Scuba Schools International) medical questionnaire according to the rules and regulations set out by SSI. All volunteers are required to get their GP or Dive Medic to sign the declaration on the reverse of the SSI form if they have answered yes to any of the questions. The online forms are received by the administrators at the UK, US or Canadian office.

### Insurance

Operation Wallacea has purchased a comprehensive travel insurance policy on behalf of all of its participants which includes personal property, cancellation, curtailment and rearrangement cover as well as unlimited overseas medical and repatriation expenses. This ensures that Operation Wallacea can agree evacuation routes with the insurers prior to the expedition, thus expediting the administrative processes behind organising an evacuation.

## General roles in the event of an emergency

Operation Wallacea in Madagascar for 2020 has two sites for operations. Each of the sites has an evacuation leader and a nominated deputy:

Sites	Venture Leader
Northwest Madagascar: Mariarano (including satellite camps Matsedroy and Antafiameva)	Eleanor Field Deputy: Sam The Seing
Nosy Be: Ambondrona	Ellen Boyce Deputy: Erwan Boulvais

In the event of any emergency, the evacuation leaders, who are responsible for managing the response to any incident, will be communicated directly with the national coordinator Shaun Revely, who will be in Tana for the whole period of the expeditions. Communication with the Opwall head office and the assistance agency and insurers will in the first instance be led by Shaun Revely. Each site's evacuation leader will collaborate with the senior medic on site in determining the level of the incident/accident/injury, in order to communicate this to the national coordinator, Opwall head office and insurers/assistance agency. In the

case of the evacuation leader himself/herself being absent, injured or unfit to coordinate, the named deputy will take over.

## **Levels of priority of incidents (Medium, High, Emergency)**

Carefully planned evacuation protocols are in place in all the sites in Madagascar. All staff will be asked to read the full range of health and safety and risk assessment documentation. Training on the evacuation procedures and protocols before starting work on site will also be delivered to all staff members by the venture leader for each site.

Because of the high variability of influential factors such as weather conditions and nature of potential injuries, several different evacuation scenarios must be prepared for prior to the season. All staff are fully briefed in these scenarios, and this report describes the most commonly used and available evacuation options.

It is the responsibility of the Medical Officer at the relevant site to determine if an emergency scenario exists and to ensure the patient is stabilised ready for evacuation. The Medical Officer on site with the casualty will decide the level of emergency evacuation required for the patient in consultation by phone with doctors from the target hospital. These should be classified as Medium Priority, High Priority or Emergency.

### **Medium Priority**

Cases in which the patient is in no immediate danger, but the onsite facilities and local facilities are unable to cope were their condition to deteriorate or where the condition cannot be assessed on site. This requires the patient to be moved as quickly as possible without the need to hire special vehicles or boats to the nearest appropriate suitable local facilities.

### **High Priority**

Cases where the patient's health is at risk if immediate action is not taken. An example of this is a broken bone. This would require a scheduled flight from Mahajanga or Nosy Be to Antananarivo.

### **Emergency**

Cases where the patient's life is at risk or there is a damage or loss of limb if immediate action is not taken. This requires the fastest possible transfer by air to a western standard hospital, which for most types of emergency would be in Antananarivo. However, if a recompression chamber is required then the patient will be transported locally to the recompression chamber on Nosy Be.

If an emergency occurs, then the Incident Coordinator for the site is responsible for ensuring that all relevant staff are aware of the ongoing emergency and follow up actions. All staff involved in the major accident or emergency procedure should keep detailed notes of times, actions taken, contacts made, costs incurred etc. After the incident has been closed it is the responsibility of the Incident Coordinator to compile a detailed report and submit this to the relevant insurance company.

## 2. Medical Facilities

The table below indicates the location of the hospital nearest to each of the sites. The management and decisions on status of any incidents will determine whether the local hospitals are appropriate (Mahajanga and Nosy Be), or whether the incident requires immediate evacuation of the patient to Antananarivo (Tana) or to suitable facilities overseas.

Site	Nearest Hospital for minor or medium treatment (contact details in Section 10)
Mariarano Village Camp	Mahajanga
Matsedroy Forest Camp	Mahajanga
Antafiameva Forest Camp	Mahajanga
Ambondrona Dive Camp	Hell Ville, Nosy Be

## 3. Medical Cover

### a. Mariarano, Matsedroy and Antafiameva (Madagascar North, nr Mahajanga)

There will be a doctor on site at Mariarano, Matsedroy and Antafiameva for the duration of the expedition. Medical kit will include all items required by Opwall specifications.

### b. Ambondrona (Nosy Be)

There will be no medic on site at Ambondrona. However, the nearest location to receive medical treatment is approximately 20 minutes from the camp via car.

## 4. Evacuation Procedures

It is the responsibility of the Medical Officer at the relevant site to determine if an emergency scenario exists and to ensure the patient is stabilised ready for evacuation. Once a major incident or emergency is identified the Incident Coordinator (venture leader) for that site must be notified.

At the Mahamavo sites this will be Eleanor Field (deputy: Sam the Seing), for the Mariarano to Antananarivo and Mariarano to Nosy Be transit this will be Shaun Revely and at Nosy Be this will be Ellen Boyce (deputy: Erwan Boulvais). The Incident Coordinator will liaise with the National coordinator (Shaun Reveley) who is based in Antananarivo and has mobile, landline and email connections so can communicate with the UK Opwall office and keep them informed of progress.

The Medical Officer on site with the casualty will decide the level of emergency evacuation required for the patient in consultation by phone with doctors from the target hospital. These should be classified as Emergency (requiring the fastest possible transfer by air to hospital facilities in Antananarivo), High Priority (requiring the patient to be moved at the fastest speed possible to hospital facilities in Antananarivo) or Medium Priority (requiring the patient to be moved as quickly as possible without the need to hire special vehicles or boats to the nearest appropriate medical facilities).

In all Emergency or High Priority cases where a patient is being transferred to medical facilities they should be accompanied by the relevant Medical Officer or someone appointed by the Medical Officer as fit to accompany the patients. The absence of the Medical Officer from the site whilst the patient is accompanied to the hospital will require the temporary appointment of another Medical Officer at the site, or if this is not possible the suspension of all high-risk activities at the site until the Medical Officer is back on site. In the case of a Medium Priority evacuation (e.g. transfer to a hospital for a confirmatory X-ray) another staff member other than the Medical Officer may be nominated to accompany the patient.

The Incident Coordinator on being informed of the major accident or incident should immediately contact the insurance company 24-hour contact number to explain the situation and obtain the necessary authorisations for the evacuation actions necessary or contact the UK to do so. They will then contact the relevant organisations required to implement the evacuation and receive the patient. In addition, they are responsible for informing the Project Director for Operation Wallacea that there is an ongoing emergency and the contact person given by the patient on their personal details form of the actions being taken and the state of the patient. They are also responsible for ensuring that all relevant staff are aware of the ongoing emergency and follow up actions.

All staff involved in the major accident or emergency procedure should keep detailed notes of times, actions taken, contacts made, costs incurred etc. After the incident has been closed it is the responsibility of the Incident Coordinator to compile a detailed report and submit this to the relevant insurance company.

## **Emergency evacuation**

It is the assistance agency nominated by Operation Wallacea's insurers who are ultimately responsible for making decisions on the most appropriate means of evacuation following any incident. The venture leader for each site will make contact first with the National coordinator (Shaun Reveley) who will lead on communication with the head office, assistance agency and any third parties (charter aircraft, doctors, hospitals) necessary.

## **Overland evacuation**

Both fixed base sites (Mariano, Ambondrona) will always have a vehicle on site to provide for any emergency evacuations as required.

## **Air evacuation**

A number of possibilities exist for air evacuation from the sites where Operation Wallacea is operating in Madagascar. A range of Malagasy charter aircraft companies (including both fixed wing and helicopter options) are based in the capital Antananarivo.

For evacuations from the sites for treatment in the capital one of these operators (see section 9 of this plan for details) is most likely to be used. MAF (missionary aviation fellowship) is the preferable option for Mariano and the overland journey. For the Nosy Be (Ambondrona) dive camp the preferred option is the Divers Alert Network. Helicopter evacuation is another possibility (Madagascar Helicopter), although the time to get from Antananarivo to the site (5 hours to Mariano) makes it unlikely and would only be anticipated in the case of patients unable to be moved from site to a landing strip/airport where fixed wing air ambulances can land. For evacuations from the sites for treatment overseas (typically this would happen

in South Africa), either the assistance agency will nominate a Malagasy charter company or send an air ambulance into Madagascar from overseas.

Airstrips for each site are available, although at different distances from the camps themselves:

Site	Nearest Airport/Airstrip	Time to travel	Helicopter Landing Possible?
Mariarano	Mahajanga	3 hrs drive	In Mariarano Village
Ambondrona	Fascene Airport, Nosy Be	40 minutes drive	Hell-Ville Stadium (25 minute drive from Ambondrona)

## 5. Reporting and Logging

During evacuations it is crucial that a log is kept on site by the Medical Officer and by the Incident Coordinator detailing times, personnel involved and all relevant details of each step of the evacuation process.

All medium priority evacuations must be logged by the Medical Officer and included in the post-season report. For high priority and emergency evacuations the Medical Officer and Incident Coordinator and any other staff involved in the incident must make a report immediately following the incident. A full safety assessment must be carried out after all evacuations and if a similar incident is likely all activities must be stopped until the situation has been rectified.

The Incident Coordinator for each site will collate the reports of all high priority and emergency evacuations and will submit the final report to the UK office. They will also submit the costs and report to the insurance company for re-imbusement of costs.

## 6. Mass Evacuation and Disaster Management

There is the possibility, albeit incredibly small, that a large-scale incident could occur which would require a large number of Operation Wallacea volunteers and staff being repatriated. Such incidents could include political unrest, natural disaster and terrorist attacks. These incidents can be broken into two types, those with prior warning and those without.

### Major incident with prior warning

Some major incidents come with a degree of prior warning. A good example of this is political unrest resulting in violence, which would have a build-up period. We constantly monitor the political situation of the area we work in and if our experienced field operatives decide that the political situation has become unsafe they would order a full evacuation. In such an incident the Incident Coordinators would liaise with the insurance company and relevant embassies to agree the best route for repatriation.

### Major incident with no prior warning

Some incidents, such as a terrorist attack or natural disaster, would have no prior warning. In cases such as these the field staff would get all volunteers and staff to a place they deemed safe by which ever means

they decide best. From here the Incident Coordinators would contact the volunteers' embassies to coordinate an evacuation strategy. The details of such an evacuation would vary dramatically depending on the situation and as such it is impossible to produce more detailed procedures than this.

## 7. Contact Details

### A note on phone numbers

The international access code for Madagascar is 261. Calling from the UK requires use of the prefix 00 before 261 and then the omission of the first 0 of the number. If a number in Madagascar begins with 020 it is a landline or it begins with 03 it is a mobile number. For calling domestically within Madagascar the international access code is not necessary and all numbers be they landlines or mobiles start with a 0.

### UK Opwall Office:

Tel: +44 (0)1790 763 194 (24hrs)

Fax: +44 (0)1790 763 825

E-mail: [info@opwall.com](mailto:info@opwall.com) Web site: [www.opwall.com](http://www.opwall.com)

### National Logistics Coordination:

Shaun Reveley, Ecotour Ltd, Antananarivo Email: [ecotour@moov.mg](mailto:ecotour@moov.mg)

Mobile: 00 261 (0) 202 261 163

24hr emergency number: 00 261 (0) 331 108 548

### Mariarano Site Contact Information

1. Mariarano camp satellite phone: 881621433925
2. Matsedroy camp satellite phone: 881621411037
3. Antafiameva camp satellite phone: 881621434775

NB. To call one of these satellite phones from another Iridium satellite phone, you just call 00+number. To call one of the satellite phones from a land line or mobile you can just call 00+number but this is very expensive: about 5GBP/minute from a landline. Alternatively, you can call the Iridium access number 0011 480 768 2500 and then, when prompted, enter the number of the satellite phone that you want to call. Please note that in either case this still costs the caller about 2GBP/minute and our call credit is also depleted when receiving calls, so please call the satellite phone numbers only when managing emergency situations or for very important logistic matters. For day to day logistics please try the Mariarano camp mobile phone or Sam The Seing's mobile or you could send a short text message (<160 characters) to one of the satellite phones by going to: <http://messaging.iridium.com/>

- Mariarano camp phone: 00261 2062 926 24
- Sam The Seing mobile phone (when in Antananarivo/Mahajanga): 00 261 (0) 340 382 973
- Eleanor Field mobile phone (when in Antananarivo/Mahajanga before and after the season): 0044 (0) 7964542405



## **Nosy Be (Ambondrona Camp) Contact Information**

- Ellen Boyce
  - WhatsApp: 001 410 310 1115
  - Malagasy mobile: 00 261 32 93 269 08
  - Email: [ellen.boyce@opwall.com](mailto:ellen.boyce@opwall.com)
  - SKYPE: ellen.fluharty
- Erwan Boulvais
  - Mobile: 00 261 (0) 32 07 96 158
  - Email: [erwan.boulvais@yahoo.fr](mailto:erwan.boulvais@yahoo.fr)

## **Overland transits between sites**

Shaun Reveley, Ecotour Ltd, Antananarivo Email: [ecotour@moov.mg](mailto:ecotour@moov.mg)

Mobile: 0331108548

24hr emergency number: 00 261 (0) 331 108 548

Mobile: 00 261 (0) 202 261 163

## **8. Air Ambulances in Madagascar**

For any medical evacuations the assistance agency CEGA will need to be contacted in the first instance. Air Medical evacuations within Madagascar will inevitably be undertaken by one of the domestic operators, either by helicopter (Madagascar Helicopter), or more likely by aeroplane. The four main domestic providers of air medical evacuation are listed below. MAF is the preferred option. Any medical evacuations to outside Madagascar (most likely to South Africa, Durban for Recompression, and Johannesburg for other conditions) could be undertaken directly by a domestic operator or by an international operator. This will be organised by the assistance agency CEGA.

### **Missionary Aviation Federation**

MAF Madagascar, Enceinte Avion Leger, Ivato Aeroport BP 132, CP105 Antananarivo Madagascar Tel/fax: +261 20 24 524 57

Mobile: +261 33 11 656 05

24 hr emergency number: +261 33 11 656 05

BLU: 7036 LSB

E-mail: [maf-mad@iris.mg](mailto:maf-mad@iris.mg) [www.maf-madagascar.org](http://www.maf-madagascar.org)

### **Madagascar Helicopter**

30, rue Emile Ranarivelo – Behoririka Antananarivo 101 – Madagascar Landline

+261(0)20 22 547 62

Mobile +261 (0)32 07 212 54

<http://www.madagascarhelicopter.com>

### **Trans Ocean Airways**

Tel +261 (0) 20 22 538 38  
Tel +261 (0) 32 05 536 36  
Tel +261 (0) 32 05 538 38  
Fax +261 (0) 20 22 539 00  
Fax +261 (0) 20 24 242 57  
Email: [toa@toa.mg](mailto:toa@toa.mg) <http://www.toa.mg/>

### **Madagascar Transport Aerien**

MADAGASCARTRANSAIRZoneAvionsLégersIvatoAéroport BP 4070, 101  
– Antananarivo MADAGASCAR [mtransair@moov.mg](mailto:mtransair@moov.mg) 24 hour number: +261 (0) 32 07 09 009  
Medical evacuation number +261(0)320700123 <http://www.mta.mg/>

### **Aeromarine**

BP 3844 Aeroport, Ivato, Antananarivo <http://www.aeromarine.mg/>  
[aeromarine@blueline.mg](mailto:aeromarine@blueline.mg) / [aeromarine.com@gmail.com](mailto:aeromarine.com@gmail.com) Tel +261 (0) 32 11 444 44 (24hr number)  
Tel +261 (0) 33 11 444 44  
Fax +261 (0)202258026

## **9. Clinics/Hospitals in Madagascar**

### **Facilities in Antananarivo**

#### **Polyclinique d'Ilafy Clinic**

Andafiavaratra, Ambohitrahaha, 101 Antananarivo, Madagascar BP: 8632  
Tel: +261 (0) 2022 425 66/ +261 20 22 425 69/ +261 20 22 425 73 / +261 3311 073 91  
Fax: +261 (0) 2022 425 64

Email: [mbolatiana.andriamanalina@sodiat.mg](mailto:mbolatiana.andriamanalina@sodiat.mg), [clinilafy@polycliniqueilafy.com](mailto:clinilafy@polycliniqueilafy.com) Website:  
<http://www.polyclinique-ilafy.com/>

Emergency Contact: Doctor Prosper +261 (0) 3207 243 13  
Secondary Contact: Andriamanalina Mbolatiana +261 (0) 3207 409 08

The private clinic 'Polyclinique d'Ilafy' has a fully equipped operating suite with several theatres, diagnostic equipment such as x-ray machines and scanners, a laboratory, dental care facilities and blood bank. This is one of the best clinics in Tana and the one that the 'Tropical Biology Association' works with. There is an area for helicopter landing behind the clinic. The clinic has also collaboration with another helicopter company.

#### **Centre de consultation Behoririka**

Centre de consultation en centre ville – Behoririka, BP:8632 – Antananarivo101 Tél: +261 20 22  
641 28 / +261 20 22 603 63  
Fax: (261) 20 22 313 50  
E-mail: [clinilafy@polycliniqueilafy.com](mailto:clinilafy@polycliniqueilafy.com) Mobile: 033 11 458 48 / 032 07 409 38

### **Pasteur Institute (for blood and other tests)**

IPM - Institut Pasteur de Madagascar, B.P. 1274, Ambatofotsikely, 101 Antananarivo, Madagascar  
Telephone: 261 20 22 412 72 / 74  
Telephone: 261 20 22 401 64 / 65  
Télécopie: 261 20 22 415 34 e- mail: ipm@pasteur.mg  
Rabies treatment: Tél. : 20 22 412 72 - Poste 431

### **Facilities in Mahajanga**

The private clinic at Mahajanga has an operating theatre, diagnostic equipment, and a dental care centre. It also has rooms that patients can stay in should they need to be hospitalized for time periods longer than a day.

Espace Médical – Mahajanga 24hr: 00261340200911  
Tél. : 00 261 20 62 248 21 / 00 261 34 02 172 26 Mobile: + 261 34 02 172 26

### **Facilities in Nosy Be**

Clinic Santa Maria Della Gracia  
Dr. Hubert: +261 32 02 418 23 ; +261 34 13 590 23

This clinic set up by Italian missionaries is located in between Ambataloaka and Hellville. This will be our primary facility for all minor to moderate illnesses or injuries. This clinic has the capability to cover essentials, such as IV fluids, suturing, parasitological tests, xrays and minor surgery. There are beds for patients to stay overnight if necessary.

Espace Médical – Nosy Be Hellville Nosy Be  
Tél. : + 261 20 86 620 57 Mobile: +261 34 05 431 15

The state hospital in Hell-Ville has the ability to perform major surgeries. This hospital will be used only for more serious illnesses or injuries. There are beds for patients to stay overnight if necessary. However, this facility does not provide sheets, pillows, blankets, or food. Patient or his/her company must provide their own.

## **10. Decompression Chamber**

**Recompression chamber – Nosy Be (preferred option due to location).**

Viet et Harmonie Health Center – Darsalam  
Phone: +261 34 86 925 55

- In the event of an incident at the Nosy Be marine site requiring decompression facilities contact:  
Divers Alert Network (DAN) – Southern Africa: +27 (0) 828 10 60 10
- General inquiries: Divers Alert Network (DAN): +27 11 266 4900

### **Backup Option for Recompression**

Should the recompression chamber in Nosy Be not be out of commission, resort to the recompression chamber in Durban.

- In the event of an incident at the Nosy Be marine site requiring decompression facilities contact:  
Divers Alert Network (DAN) – Southern Africa: +27 (0) 828 10 60 10

DAN will arrange evacuation to one of the closest recompression chambers in Durban.

Office tel: +27 31 268 5255

St Augustines Hyperbaric Medicine Centre – part of Netcare St Augustines Hospital  
4 Cato Road, Berea, Durban  
4001, South Africa

### **Third Option for Recompression**

Centre Hospitalier Terre Sainte Saint Pierre Reunion

Emergency Admissions +262 262 35 90 00 (ext 5174) <http://www.chr-reunion.fr/>