



## **DROMLAN SARS- COV-2 /COVID 19 Sanitary Protocol**

FINAL VERSION 31/08/2020

*This document was adopted by the DROMLAN Pre-Season Meeting of the 31/08/2020 and will be applied by all the DROMLAN Members operating during the Antarctic season 2020-21.*

### **A. BACKGROUND**

A global pandemic of the SARS COV-2/ COVID 19 corona virus was declared by the WHO on the 12<sup>th</sup> of March 2020.

Due to the highly infectious nature of the virus, and the speed of propagation, strict restrictions on movement were rapidly imposed by all countries, leading to the eventual suspension of air travel throughout the World. Should this situation continue to persist at the start of the Antarctic season 2020-21, the DROMLAN Community has mobilised to put in place a joint Sanitary Protocol (the DSP) to prevent the introduction of COVID19 to the Antarctic Continent.

For the DROMLAN Community, Cape Town is the gateway to Antarctica. The progression of the virus in South Africa is of particular interest to the Members. According to the Gateway Status Reports supplied by the Gateway Commission set up by IAATO, the infection rate peaked in June and July 2020, with the onset of colder weather. By Mid-August, the number of cases had started to decrease, and on the 17<sup>th</sup> of August the country moved from stage 5 to stage 2 of the 5-stage Alert levels.

#### **1. COMNAP Guidelines Provided to date**

- **SARS-CoV-2 / COVID-19 - Recommendations (non-mandatory) in the context of Antarctic Operations**  
Working Paper – Version 6 (16 March 2020)  
Objective: To provide guidance to the COMNAP Membership to collectively strengthen national efforts to avoid introducing the SARS-CoV-2 virus into Antarctica through national Antarctic program actions and activities.
- **“COMNAP Desktop Study” - Preparing for the 2020/21 Antarctic season in the context of global COVID-19**  
4 May 2020
- **COMNAP COVID-19 Outbreak Prevention & Management Guidelines [DRAFT]**  
Version 3 (17 July 2020)  
Overarching Goal: To provide guidance (non-mandatory) to the COMNAP Membership to collectively strengthen national efforts, including those efforts implemented at Antarctic gateways, to avoid introducing the SARS-CoV-2 virus into Antarctica through national Antarctic program actions and activities for Antarctic season 2020/21.
- **COMNAP and SCAR JOINT EXPERT GROUP ON HUMAN BIOLOGY AND MEDICINE (JEGBHM)**



**Advice in regards to COVID-19: Prevention of Intercontinental Spread and Response in Suspected or Confirmed Cases - Guidance for Members**

*Draft V3.0 Jul 2020*

The COMNAP guidance documents provide a very good source of balanced information and form the basis for this Protocol.

**2. Specificity of the DROMLAN Sanitary Protocol (DSP):**

- The DSP is specific to one gateway – therefore, it is geographically constrained.
- The DSP is more detailed with regard to CPT Gateway sanitary actions to be taken.
- The Kenn Borek aircraft crew based in the DROMLAN Operational Area, will apply an equivalent and acceptable quarantine regime operating on their flight path. (*Protocols applied: NSF Protocol, Punta Arenas (COMNAP & Chile), Rothera (BAS & COMNAP), Neumayer (COMNAP & DROMLAN), SANAE (COMNAP & DROMLAN), Novo (COMNAP & DROMLAN)*).
- Where a Member decides not to apply the DROMLAN Protocol, there is no access to shared flight infrastructure for the routes **CPT - Novo** and **Novo - national stations**. This makes the Protocol Mandatory for shared flights *on these routes*.
- Discretion is allowed with regard to minor aspects which are not covered by the DSP, e.g. types of meals, choice of hotel, guesthouse accommodation, etc.
- Where the DROMLAN Sanitary Protocol is silent, the COMNAP Guidelines may be applied.

**B. OBJECTIVES**

1. Antarctica is the last continent on Earth where the COVID 19 virus has not appeared, and taking into account the lack of advanced medical care facilities on the continent, it is better that this situation should continue to prevail.

**The objectives of the 2020-21 season are:**

- i. To prevent Intercontinental spread.
- ii. To prevent intracontinental spread.
- iii. To manage the virus at Stations.
- iv. To safely extract COVID 19 patients from Antarctica.

This protocol will provide mandatory guidance to the DROMLAN Community to collectively strengthen national efforts, including those efforts implemented at Antarctic gateways, to avoid introducing the SARS-CoV-2/ COVID19 virus into Antarctica through national Antarctic program actions and activities, for the Antarctic season 2020/21.

**The situation continues to evolve rapidly. DROMLAN Members are urged to continually consult and review WHO published information and its applicability to Antarctic deployment and operations.**



2. A number of countries need to relieve their over-wintering crews, or carry out necessary maintenance to protect infrastructure integrity, and so experience an unavoidable necessity for deploying to the Antarctic, despite the possibility that the virus might unintentionally be introduced on to the continent.
3. With strict enforcement of isolation between Stations, should the virus be introduced into one Station, the likelihood of transmission to others is limited, so long as shared logistics means are carefully sanitized after each use, and masks are worn at all times during transfers. The intention of Station operators is to maintain isolation between Stations, such that personnel of different programs do not meet in closed spaces.
4. Refuelling activities will require a specific procedure to prevent close contact between parties.
5. Exceptionally, pilots who have undergone the mandatory 14-day quarantine, will be able to overnight in Stations when there is a need, for example, when the duty cycle flight hours may be exceeded before reaching their home Station. In this event, the pilots will be provided suitable accommodation, meals, and sanitary facilities in separate units. **After one month of operations**, if it is established that the DROMLAN Area is clear of fresh virus outbreaks, the rule may be relaxed to allow the pilots to take their meals with the Station crew.
6. In the event of an emergency, of any type (weather related, medical, mechanical, etc.), the rules will be relaxed to provide assistance to flight crew and personnel from other Stations.

### **C. CURRENT INFORMATION ABOUT THE VIRUS**

1. Transmission generally occurs 4-9 days after **exposure** (*approx.*). This is the period of **incubation**.
2. The incubation period includes a 3 day (*approx.*) **latency period** –( *no symptoms, and no positive test possible*).
3. There are 10 days of infectiousness when the disease is most likely to be transmitted. During this period a PCR test should give a positive result.
4. Testing:
  - PCR testing – **80% of those infected will be asymptomatic** or will have minor symptoms. **40% false negatives** have been experienced. Repeated testing is essential.
  - **Anti-body testing** is of no use between Day 0-3 of transmission and is of questionable use between day 3 and 10, as the immune reaction only peaks around day 10 after the onset of the infection. Early in the disease this test is not suitable to establish the presence of infection.
  - The duration and extent of immunity (if any) has not yet been established by research, although there are some indications that there is some immunity acquired in certain persons.
5. To control the spread, quarantine and PCR testing will be required over the expected duration of the infectious phase.
6. Dedicated accommodation is an essential element of the quarantine, with compliant staff – ready to apply the sanitary rules elaborated here.
7. It is essential to have compliant expeditioners, willing to comply with the isolation rules.
8. Flight crews will also have to quarantine or practice total isolation from deploying personnel.
9. Feeder flight crews deploying through Punta Arenas will apply equivalent protocols – (and will need to quarantine at South American gateways).



10. **Strictly no contact is permitted with tourists or other expeditions not applying the same or equivalent strict protocol.**

#### **D. DROMLAN SHARED INFRASTRUCTURE**

The DROMLAN (Dronning Maud Land Air Network) is a partnership between 12 countries operating in the Dronning Maud Land region of East Antarctica. The partnership seeks to share the costs of deploying and managing aircraft and support infrastructure, such as landing strips and air fields, and the services that they provide.

As such, the National Antarctic Programs (NAPs) that use facilities provided by other NAPs or by the DROMLAN service providers, agree on a common standard for the DROMLAN COVID 19 Sanitary Protocol (the DSP) for all procedures and personnel deploying through their stations and air fields and sharing the aircraft put at disposal of the Members of the Network.

The Gateways concerned are principally Cape Town, (as the main deployment hub) and Punta Arenas (as the aircraft mobilization pathway). However, aircraft deploying through Punta Arenas will be called upon to apply the prevailing regulations in that region.

**This Sanitary Protocol will apply only to the joint deployment through Cape Town, using intercontinental aircraft (as chartered) and intra-continental aircraft operating within the DROMLAN area, to be provided by Kenn Borek Airlines (2 Basler BT-67) through ALCI.**

#### **E. RISK MITIGATION**

- a) Risks associated with transit through airports will be mitigated using *dedicated sanitary corridors*.
- b) A special pack of PPE must be provided to each participating individual *transiting a public space*, to contain certified face masks, hand sanitizer and sterile overalls.
- c) Quarantine *in Cape Town*, using suitable hotels or guest houses selected for the purposes of DROMLAN, where the staff are amenable to apply the conditions of isolation required by the quarantine.
- d) Mitigation of risks associated with use of *shared logistics* means, is through thorough sanitization using professional companies accredited for the purpose.
- e) Risks of transmission *between Stations*, via shared intra-continental flights, will be mitigated by having a fully quarantined crew, and sanitization of aircraft between flights. *Methods of sanitization for small aircraft and helicopters at Stations have to be agreed, taking into account Antarctic conditions*.
- f) Risk management at Stations is covered by COMNAP Guidelines, but the conditions at each of the >100 Stations and facilities are very varied, and each National Program will have to take responsibility for the management of outbreaks.
- g) Risk Management of MEDEVACs. In the event that a MEDEVAC is required, the Station Management will have to decide whether to evacuate only one person, or other susceptible individuals who may have been affected, or **the entire crew**. *Personal Protective Equipment (PPE) kits* have to be provided to each individual to be used in the event of a MEDEVAC.



F. **SCENARIOS**

- i) **Gateway Conditions:** It should be clear to all parties that the following recommendations will **only be applicable in the event that air traffic resumes to Cape Town International Airport**, and that the lockdown is lifted, or that the level is adjusted to a low risk category. In the event that the Gateway remains shut, the protocol under consideration will need to be adjusted.
- ii) Should international flights not resume by the start of the season, there is an option to use dedicated National Program charter flights to reach Cape Town. ALCI will be responsible for permits for any single NAP charter flights. Special permits will need to be obtained for incoming personnel.

Embassies or Consular Offices may take direct contact with:

HC Pretorius (Ms)

Deputy-Director

Sub-directorate: Marine and Antarctica

Branch: Global Governance and Continental Agenda

Department of International Relations and Cooperation

Tel: 012-351-0178

Fax: 012 329-0146

e-mail: [pretoriush@dirco.gov.za](mailto:pretoriush@dirco.gov.za)

Alternatively, DROMLAN NAPs may also take contact directly with Mr. Nishendra Devanunthan of SANAP (E-mail [Ndevanunthan@environment.gov.za](mailto:Ndevanunthan@environment.gov.za)) who will facilitate the permit requests by intervening on behalf of the Members who wish to operate through Cape Town during the coming season, whether by air or by sea.

- iii) **Vaccine availability:** While a vaccine will be the only way to control the SARS COVID 2/ COVID 19 novel corona virus, a vaccine which has passed all Phase 3 clinical trials is not yet available, and therefore this is currently not a valid solution for shared flights for this season.
- iv) The most **probable scenarios** for the DROMLAN Shared Flights are as follows:

- **Scenario 1:**
  - Cape Town at lockdown level 1
  - international flights have resumed
  - Arrival in Cape Town using a commercial airline
  - DROMLAN Quarantine.
  - Transit through dedicated airport sanitary corridor
  - Flight to Novo Runway using the Ilyushin 76 with a quarantined crew, and dispatch to Stations with sanitised Baslers mobilised through Punta Arenas .
- **Scenario 2:**
  - Cape Town lockdown level 2 or 3
  - No international flights
  - Border control – visas or permit required (see above)
  - Arrival in Cape Town using a **dedicated charter** from home location
  - DROMLAN Quarantine



- Flight to Novo Runway using the Ilyushin 76 with a quarantined crew, and dispatch to Stations with sanitised Baslers mobilised through Punta Arenas (or Ushuaia) depending on the situation in South America.

v) The **National Antarctic Programmes using the DROMLAN Flights** in the 2020-21 season are the following:

- Belgium
- India (partially)
- Russia (partially)
- Belarus (TBC)

## **G. PRE-DEPLOYMENT ACTIONS**

Certain actions have to be taken prior to deployment. Necessary authorisations and agreements with local authorities in Cape Town should be negotiated in good time.

1. All expeditioners are obliged to undergo a thorough medical examination prior to deployment, and may be fully vaccinated (to include current seasonal influenza vaccinations if the Medical Officer in charge considers this necessary).
2. All expeditioners travelling through Cape Town should employ basic hygiene practices while *en route*. Basic hygiene practices will be included in the pre-deployment training to be provided by NAPs.
3. Voluntary acknowledgment of risk:  
Each expedition participant must sign a **Prior Informed Consent (PIC) document** attesting to the fact that they are fully informed of the risks of deploying and that they have undertaken to follow all the rules set down to prevent the transmission of the disease, but in the likelihood that they do become ill or severely ill, they have understood that this eventuality has been mitigated for, but that there is no guarantee that the actions taken will be 100% effective.
4. Training for *preventing transmission at Stations* – Pre-deployment training course content will be based on the COMNAP / DROMLAN guidelines.
5. Pre-deployment procurement of medicines, medical equipment and testing kits, may be based on Best Practice, and consultation between Medical personnel of different stations is encouraged
6. Suitable **quarantine sites** for DROMLAN teams are to be identified according to the DROMLAN requirements. Lists are to be provided by ALCI & Meihuizen International.

## **H. CAPE TOWN QUARANTINE**

- i) **OUTBOUND TRANSIT THROUGH CAPE TOWN INTERNATIONAL AIRPORT (CIA)**
  - a) *Dedicated vehicles for transfers to and from the airport.*



ALCI and Meihuizen International will contract with bus companies to provide dedicated and sanitised busses for the transport of DROMLAN participants from the airport to the hotels, or guest houses, and back to the hotels. **Strict separation between the driver and expeditioners must be enforced**, unless the driver is also in quarantine.

*b) Dedicated check in, and immigration – no contact with other passengers on outbound travel*

This has been discussed with the Airport authorities who will provide a dedicated Sanitary Corridor for Antarctic operations in the Executive jet Area of the Cape Town International Airport, for check in, baggage handling, security checks and immigration.

*c) Special clothing & masks for transfers to aircraft on the apron.*

Sterile kits will be provided by the NAPs for each departing expedition participant according to recommended amounts of PPE for this purpose.

**ii) DROMLAN QUARANTINE CONDITIONS**

*a) DROMLAN dedicated hotel or hotels*

- ALCI has experience with this aspect in the case of expeditioners evacuated after the end of the last season. The list of acceptable hotels and guest houses should be provided in good time to the NAPs. Separate air conditioning units per room should be favoured, to avoid transmission by this route.
- Single rooms are recommended.
- One non-quarantining person from each program should be available to assist each group with tasks outside the quarantine zones. Each program should nominate a person for this rôle.
- Sanitary rules for hotels (handling and preparation of food, linen, room cleaning, staff hygiene rules, air-conditioning), will have to be accepted by the participating hotels & guest houses. Inspection should be carried out prior to the season by ALCI & Meihuizen International.

*b) Handling pre-deployment outbreaks*

- Individuals testing positive during quarantine will immediately self-isolate. It may be necessary to find another location for self-isolation to separate the positive tested person from the rest of the quarantined hotel as the air conditioning can transmit the infection. If severe symptoms follow, the patient will be admitted to the Netcare Hospital. On recovery, they will be repatriated.

*c) Flight crews – specific management*

- The crew of the Ilyushin will also follow the 14-day quarantine and be completely isolated during their stay in Cape Town, in coordination with ALCI, who have informed DROMLAN that the crew may be isolated for the entire season. (*Note: The Ilyushin 76 crew undergoes regular testing under procedures from Volga Dneiper (re: access to the cockpit, quarantine requirements for on-board personnel in the passenger cabin, sanitization of aircraft, etc.). Volga Dneiper Protocol terms have to be translated into English and provided to the NAPs.*)
- The Kenn Borek flight crews will follow quarantine procedures in Punta Arenas, and will remain in the Antarctic for the entire season.

**iii) CAPE TOWN QUARANTINE SCHEDULE**

Based on the JEGHBM /COMNAP recommendations, the Cape Town quarantine schedule would incorporate the following:



- Strict 14-day quarantine for each group.
- Transportation of teams under strict DSP conditions – non-deploying drivers isolated from team members.
- Single rooms – six days confined to rooms with meals consumed there.

**iv) PCR Testing Schedule**

- **Mandatory COVID Testing prior to flight to Cape Town (PCR and antibody testing)**

**Day 1:** Check in and isolation begins

**Day 4/5:** **1<sup>st</sup> swab** taken – positive PCR test means immediate isolation until virus has cleared.

**Day 7-** Quarantine relaxed to allow shared meals. No contact allowed with persons outside the quarantine.

**Day 12-** **2<sup>nd</sup> swab** taken. Positive test leads to exclusion. Where it is negative, the all clear is given for deployment.

**Day 14 –** Deployment to Antarctica.

*Note: Additional risk mitigation can be achieved by prolonging the quarantine and/or the period of strict individual quarantine. A careful evaluation by the participating NAPs has to be done individually. Negative psychological effects of a prolonged individual quarantine should be taken into account.*

**I. MEDEVAC**

**a) Planning**

- i) Special equipment is available for the transport of patients with infectious disease, and these should be available aboard the aircraft participating in the MEDEVAC. NETCARE will be contacted to provide the dispositive.
- ii) ALCI has an arrangement with NETCARE hospital in Cape Town for the admittance and treatment of COVID patients, to avoid unnecessary delays to admission.
- iii) ALCI will provide a transit medical facility at Novo Air Base, in the event that a patient has to be transferred there while awaiting evacuation. Medical personnel will also be on stand-by at Novo Air Base to handle transits. In the event that a Medical professional at Novo is exposed to a confirmed case of the virus, he/she will need also to self-isolate and be tested before resuming other duties.
- iv) Prior authorization will be obtained from health authorities at Cape Town gateway for the transit of MEDEVAC patients in need of treatment for COVID 19. (SANAP Task).
- v) Agreement with Airport authorities for the use of dedicated corridors at the CIA (VIP Section) has been obtained for DROMLAN Flights. These will also cover MEDEVAC flights.
- vi) Aircraft may remain on stand-by in Cape Town throughout the season. Types of aircraft on stand-by should be notified by each DROMLAN Member operating aircraft during the 2020-21 season, giving range and fuel autonomy. A calendar will be made available, detailing which aircraft are on standby throughout the season. This could be included in the flight coordination task. (SANAP, ALCI, & NPI).



- vii) MEDEVAC Flight crews and medical personnel will be exempt from the 14-day quarantine, and will attempt to keep contact with the Station crew to a minimum. Returning flight crews may have to follow South African National Regulations on self-isolation.
- viii) Personal Protective Equipment (PPE) is to be supplied for the patient by the Station management, and for the attending medical personnel by NETCARE.
- ix) From the COMNAP Desk Top Study:

8.7 The optimal minimal Personal Protective Equipment (PPE) could be:

- 1 mask (FFP 2 or 3)
- 5 pairs of gloves
- 5 disposable protective gowns per person and day
- 1 device of eye protection per person.

*8.7.1 As an example calculation: In case of an expected time to Medevac of 10 days and 2 persons helping the patient/s that would add up to a minimum stock on station of:*

- 20 masks
- 100 pairs of gloves
- 100 disposable gowns
- 2 eye protection devices

*8.7.2 Additional PPE could be stocked (for at least two patients) at nodal points of entry or exit to Antarctica. It can be collectively utilized by several stations in times of need on first come, first-served basis.*

**b) Steps to be taken at the Station<sup>1</sup> in the event of an outbreak**

- i) Isolation – Transfer of patient to isolation units has to be done immediately on appearance of symptoms, and the procedure for handling contacts with the patient have to be rolled out. (A kit for isolation should include a thermometer, and medication for handling symptoms).
- ii) Symptomatic treatment is begun as soon as possible. PCR testing is carried out (if available).
- iii) PCR diagnostic devices – a list of devices available in the DROMLAN area should be provided to all Stations, that may need to carry out a test.
- iv) The decision to **request a MEDEVAC is taken by an** authorized person, of the level of Base Commander or Chief Medical Officer, in case of deterioration or uncertainty as to outcome.
- v) Tele-medicine – (where this is available) may be used to assist medical personnel at Stations to handle patient diagnosis and treatment.

---

<sup>1</sup> COMNAP and SCAR JOINT EXPERT GROUP ON HUMAN BIOLOGY AND MEDICINE (JEGBHM) Advice in regards to COVID-19: Prevention of Intercontinental Spread and Response in Suspected or Confirmed Cases Guidance for Members Draft V3.0 Jul 2020 - 4.3 Managing Suspected Cases: 1. General Principles: