



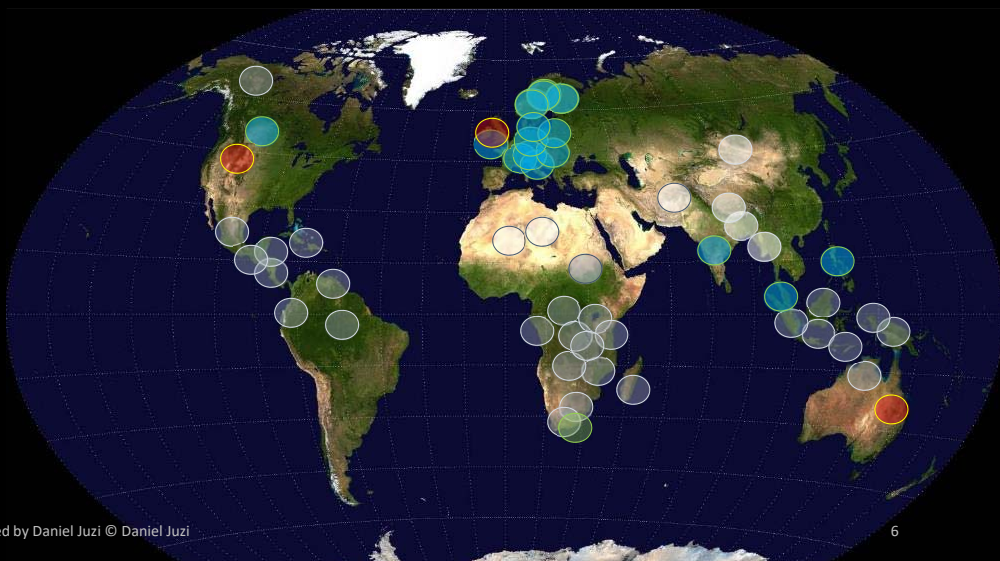
MAF - Humanitarian Flight Operator –
“Mid-Level” approach to Disaster
Response. The goal is to help relieve
human suffering by offering surge capacity
for people (staff), supplies, equipment, and
processes.







MAF currently



Presented by Daniel Juzi © Daniel Juzi

6



MAF currently: in numbers



65000 - 85'000 Flights Annually...

...so that the sick may be healed

- 180'000pax annually
- Aircraft take-off / lands every 4 min

7

MAF currently: in numbers

3030 Airports / Airfields...

... so that lives can be transformed

(MAF lands on more airfields than any other airline)



Presented by Daniel Juzi © Daniel Juzi

MAF currently: in numbers



1488 Partners...

... we work together in relief & development

MAF helps facilitate the work of various organizations where remoteness, security and isolation is an issue

- MAF has around 1300 international and local staff
- 37 operational countries – 26 flight programs

9

Presented by Daniel Juzi © Daniel Juzi

MAF currently: in numbers

135 Aircraft...

... so that last mile transport can happen (sometimes in fragile contexts)

- Cessna – Caravan (C208 / C208B / C208 & Amphib)
- Quest – Kodiak (KODI & Amphib)
- Cessna 206 / 182 (SMA) / 210 / 185 Amphib
- GippsAero (Mahindra) – Airvan (GA8)
- De Havilland – Twin Otter (DHC-6-300)
- Pilatus – PC12
- Beechcraft – King Air (BE20)

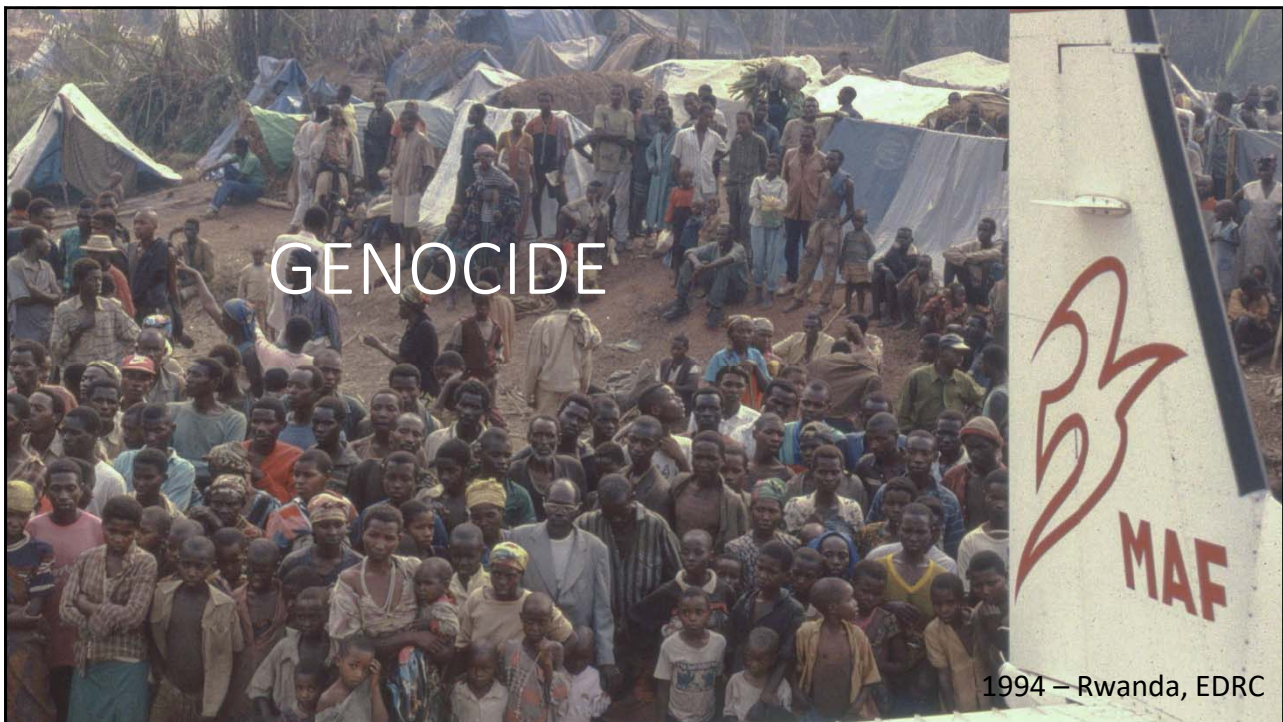


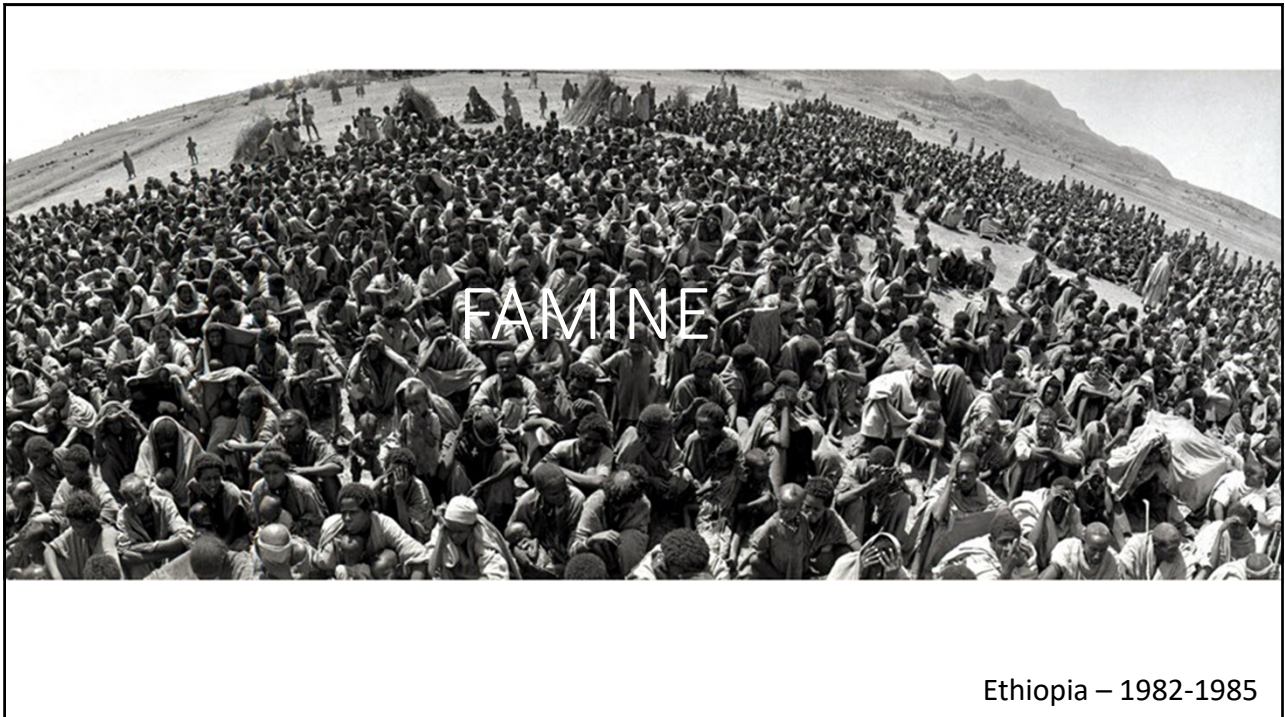
el Juzi

Global Disaster Response (DR) & MAF



Urgent Need















NEED

ACTION

RESULT





Flight support - remote



Flight support - isolated





Flight support - insecure



Tsunami - 2004

Sulawesi - 2018

Communications support





Enabling



Haiti earthquake - 2010

Enabling: Medical Services/transport



Enabling: Clinics and hospitals





Enabling:
Food-Transport



Enabling Shelter

(3 responses)



Results



Results:
Lives saved



Results:
Livelihoods restored





Results:
Provisions given



How has MAF prepared to
respond well to disasters?



Objective - provide a *rapid, impactful and efficient* global response to disasters



Rapid:

- DR is about speed - saving lives
- Very proactive posture – assessment <24 trigger operation <48
- Focus on the good - not perfect





A “mid-level” approach to Disaster Response

- “surge” capacity
 - People (staff)
 - Visas in countries where difficult to get (and anticipated)
 - Spread out (and able to surge from existing programs)
 - Finances
 - Dedicated “initial start-fund”
 - Equipment
 - Processes (focus on efficiency)
 - Partnerships

GLOBAL DISASTER RESPONSE

CORE TEAM

MAFI

MAFUS

Disaster Response
Manager

DR Core Team

Response Team
Priority 1 call list



JOHN WOODBERRY Global Disaster Response Deputy Manager	VAUGHAN WOODWARD Global Disaster Response Deputy Manager	RICK EMEAKER Pilot/Maintenance/ Operations Specialist
MARK LIPRINI Pilot/Operations Specialist	DANIEL JUZI Lead Pilot/Security/Safety/ Maintenance/Operations Specialist	BRENT PALMER Lead IT Coordinator/ Pilot/Operations Specialist
JOHN GORENFLO Deputy IT Coordinator/ Pilot/Operations Specialist	LAURA HIBBERD Lead Administration/ Operations Specialist	BRAD BALLIN Lead Maintenance Specialist/Pilot
SHARLENE COKER Administration/ Operations Specialist	JILL HOLMES Administration/ Operations Specialist	

Staff surge:
Management/
Administrative
Team
(33% can deploy
tomorrow)

New addition – Sam
Baguma





Equipment surge - Go-Kits

tested - ready for immediate response around the world

- Remote living
- Remote communications
- Office go kit
- Remote ramp operations
- etc



Equipment surge - Go-Kits

tested - ready for immediate response around the world

- Remote living
- Remote communications
- Office go kit
- Remote ramp operations
- etc



Equipment Surge:

1.2 meter VSAT/GATR "go kits"

- communication centers for MAF or NGOs



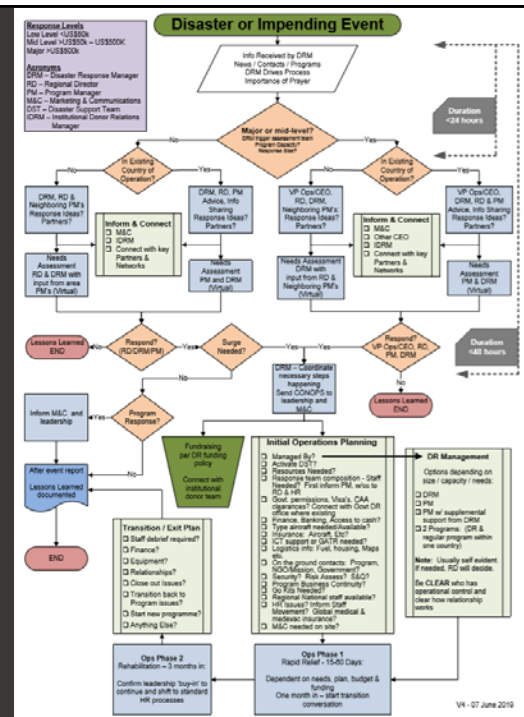
Equipment Surge:

Resource Maps – 30 programs/130 aircraft — every 4 minutes



Process Surge: DR Decision Making Flow Chart

- Trigger points drive process forward with appropriate decision-making depending on potential size of response
- Initial key actions
- Decision in <24 assessment, <48 response trigger
- Key change (3 out of 4 responses pre-emptive departure)
 - DRM can trigger assessment team (inform RD/PM)
 - Operational response group decision
- *Look at flow chart later*



MAF Electronic copy



Disaster Response Manual

MUIC.04

Amendment 0
20 September 2017

MAF US
PO Box 47
Nampa
ID 83653
USA

MAF International
Ashford Support Office
Operations Centre
Henwood, Ashford
Kent, TN24 8DH
United Kingdom

Cont

Process Surge: Disaster Response Manual (Global)







Partner surge: Equipment maps, partnerships/MOUs, networks



GRA (Global Relief Alliance)				
ons	Name	Position	Email	Office phone
ries Int'l	Scott Peck		amazed247@gmail.com	719-243-2802
	Shawnee Rae Ziegler		shawnee.ziegler@fh.org	480-319-2596
	Peter Howard	Dir. Emergency Response Unit	peter.howard@fh.org	202-688-3569x210
	Joe DiCarlo	VP Int'l programs	jdicarlo@medicalterms.org	503-260-6276
	Mark Mosely		mmosely@map.org	912-399-7004
	Ravi Jayakaran	MAP International Senior Director	rjayakaran@map.org	(404) 880-05
	Chris Sheach	Deputy Director of Disaster Response (Based in Seattle, WA, USA))	chriss@worldconcern.org	+1 (206)
	Susan Talbot		susant@worldconcern.org	206
	Nick Archer		nicka@worldconcern.org	
	Stephan Bauman	President and CEO	sbauman@wr.org	
	Thomas Spanner	Disaster Response	tspanner@wr.org	
	Ken Little	Sr. Proj Mgr - Int'l	klittle@wr.org	
	Wayne DeJong	Dir Disaster Response	wdejong@wr.org	
Priority 2	Volunteers	Priority 1	Volunteers	

Partner surge: Active contact lists - partners/NGOs

i.e. - need to contact JAARS in Cameroon down to base manager



GLOBAL DISASTER RESPONSE

CORE TEAM



Understanding Global DR - (MAFUS/I)

- Trust key
- Shared department and budget
- Decision making (response lead side)
- The team and who will show up and management (combined MAFI/US)
- Finance and procedures
 - New finance procedures: (3 pots) DR, surge fund, continue program crisis flying/global crisis
- First global manual – ex MAFI pilots flying MAFUS equipment etc
- Challenges – **silos, different software and procedures**





History of Disaster Response

Indonesia (Iran): Earthquake 1981 Chad: Famine Relief 1985 Sudan: Relief Flights (from Kenya) Nicaragua: Hurricane Gert 1993 DRC: Ebola Outbreak 1995 PNG: Aitape Tsunami Ethiopia: Famine / Food Insecurity Afghanistan: Humanitarian Crisis (Ongoing: Subsidiary Response) Honduras & Nicaragua: Hurricane Mitch 1998 Mozambique: Flooding 2001 Iran: Bam Earthquake (Subsidiary Response) Sudan: Relief Flights (from Uganda) 2003 Pakistan: Earthquake (Subsidiary Response) 2005 Madagascar: Cyclone Indala Chad: Refugee Crisis (Darfur) Nicaragua: Hurricane Felix DRC & Uganda: Ebola Outbreak Bangladesh: Cyclone Sidr PNG: Cyclone Guba / Flooding 2007 Bangladesh: Cyclone Aila Indonesia (Sumatra): Padang Earthquake 2009 Horn of Africa (Dadaab): Famine 2011 Mozambique: Flooding Philippines: Typhoon Haiyan 2013	1976 Indonesia (Iran): Earthquake 1982 Ethiopia: Famine (1982-1984) 1988 Nicaragua & Honduras: Hurricane Joan 1994 Rwanda: Genocide / Great Lakes Crisis DRC: Hutu Refugee Crisis 1997 PNG: El Nino Drought Relief Indonesia (Iran): Earthquake, Drought Relief Ethiopia: Food Insecurity 2000 Mozambique: Flooding Uganda: Gulu Ebola Outbreak South Sudan: UN-OLS: Humanitarian Crisis (Ongoing) 2002 DRC: Ituri Tribal War 2004 Indonesia (Sumatra): Tsunami 2006 Suriname: Flooding 2008 Kenya: Post Election EDRC: Civil War USA: Hurricane Haiti: Hurricane 2010 Haiti: Earthquake
---	---

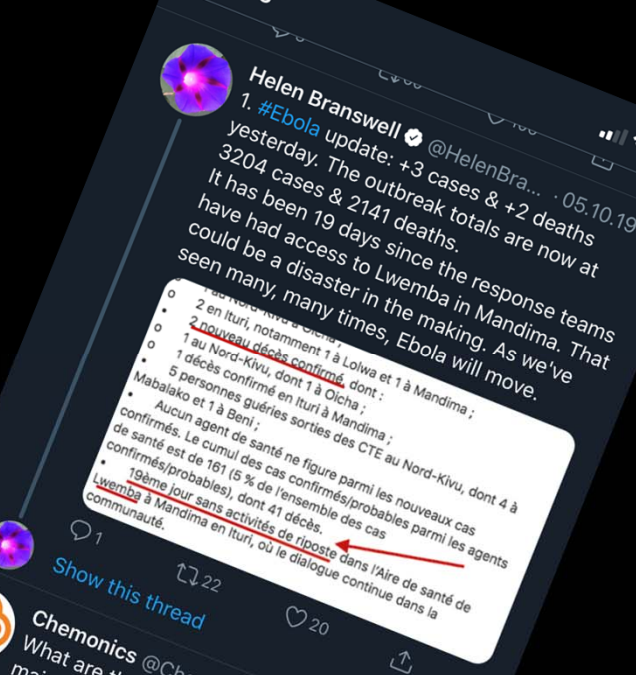
Busy season

Fall 2017:
Hurricane Irma/Maria

2018:
PNG Earthquake
DRC Ebola
Philippine Typhoon
Sulawesi
Earthquake/Tsunami

2019:
Haiti Civil Unrest
2 Mozambique Cyclones





Helen Branswell @HelenBra... · 05.10.19

1. **#Ebola** update: +3 cases & +2 deaths yesterday. The outbreak totals are now at 3204 cases & 2141 deaths. It has been 19 days since the response teams have had access to Lwemba in Mandima. That could be a disaster in the making. As we've seen many, many times, Ebola will move.

2. **nouveau décès confirmé** : 1 au Nord-Kivu, dont 1 à Lolwa et 1 à Mandima ; 1 décès confirmé en Ituri à Mandima ; 5 personnes guéries sorties des CTE au Nord-Kivu, dont 1 à Beni ; 1 agent de santé ne figure parmi les nouveaux cas confirmés. Le cumul des cas confirmés/probables dans l'aire de santé est de 161 (5 % de l'ensemble des cas confirmés/probables), dont 41 décès.

19ème jour sans activités de riposte dans l'aire de santé de Lwemba à Mandima en Ituri, où le dialogue continue dans la communauté.



Earthquake Alerts @QuakesToday · 6d

4.4 magnitude **#earthquake**. 100 km from Langsa, **#Aceh**, Indonesia
earthquaketrack.com/quakes/2019-10...

Earthquake Alerts @QuakesToday · 2d

5.0 magnitude **#earthquake**. 6 km from Ambon, Maluku, **#Indonesia**
earthquaketrack.com/quakes/2019-10...

Helen Branswell @HelenBranswell · 5d

#Measles: The year-to-date total hits 1250 with 7 more cases reported last week. I guess this is the new normal. **#notnormal**

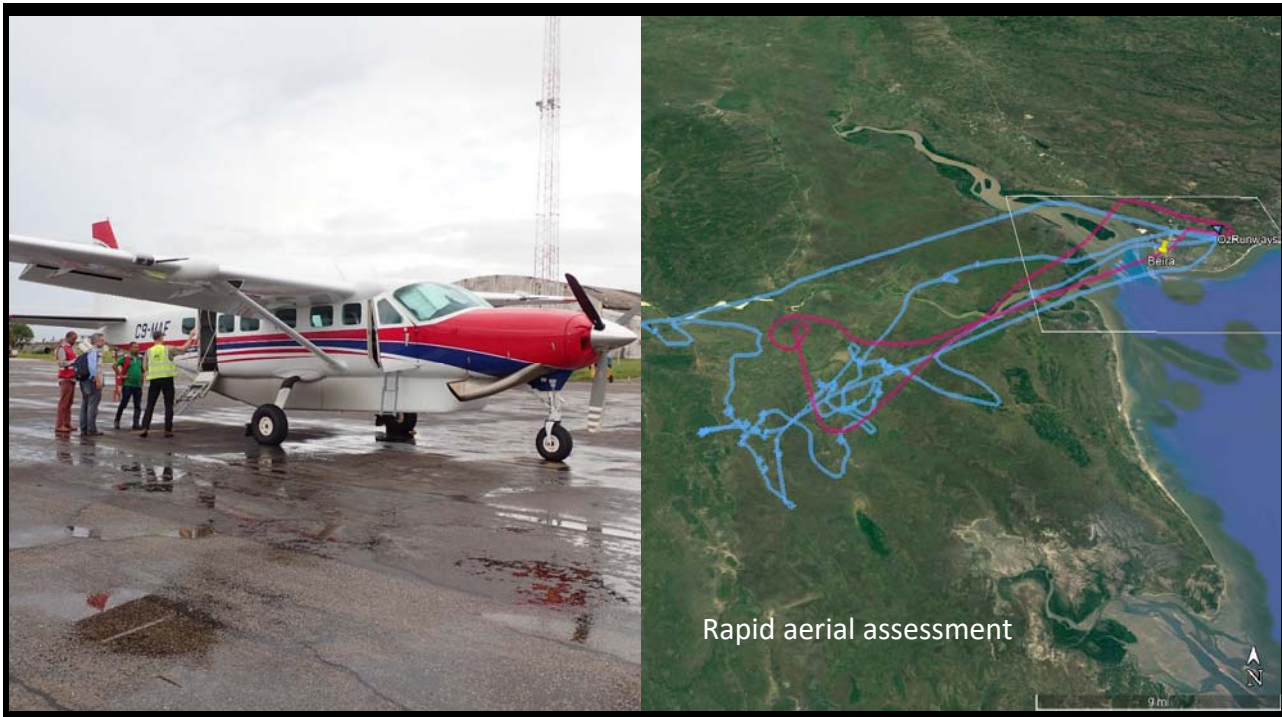
Number of Measles Cases Reported by Year

2010-2019** (as of October 3, 2019)



On 14. March 2019, Cyclone Idai made landfall at Beira City in Mozambique









“...moved the whole direction of the response and from what was perceived a small amount of flooding to a massive amount...really triggering many agencies to respond more quickly than they would have otherwise. The info was critical.”

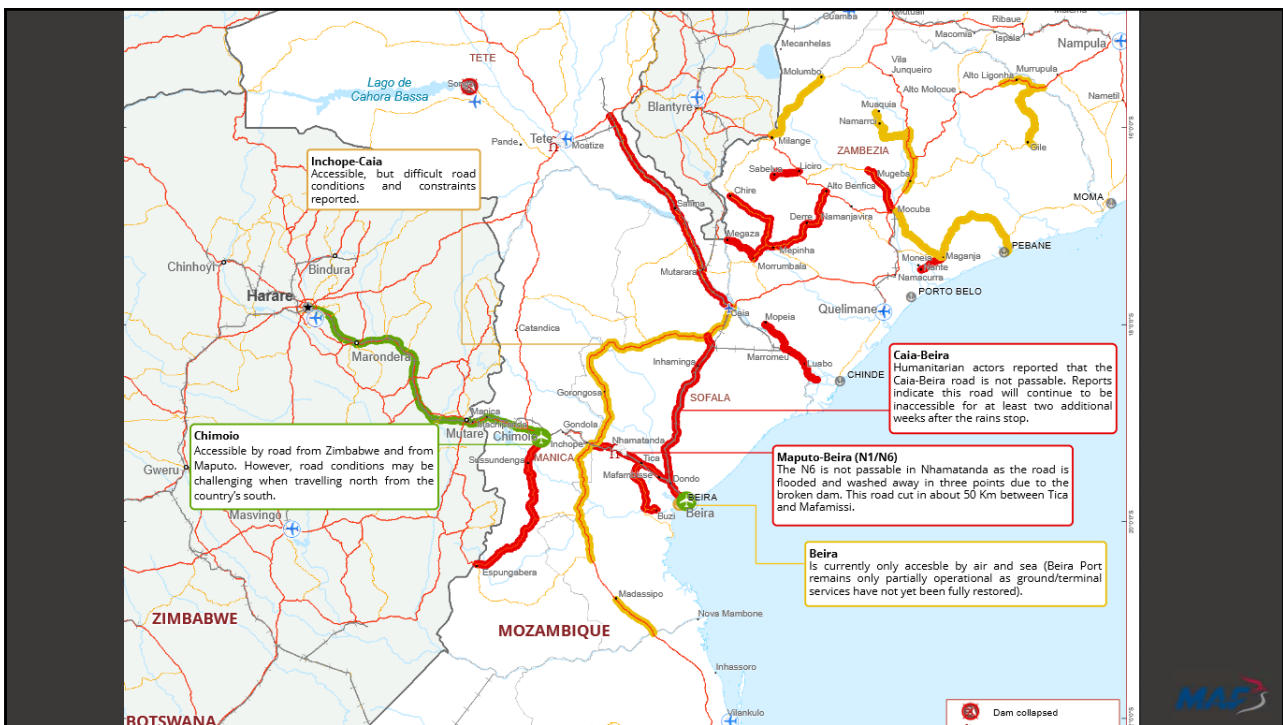
AFP, BBC, Wash Post, World Mag...



- 1.85 million people affected
- 500,000 hectares of crops destroyed
- +90,000 homes damaged
- 1,000 lives lost













First landing



TOTAL: MAF and Mercy Air

- HRS 53.9 (3231 min)
- PAX 222
- Flights 73
- 16058 kgs cargo



key lessons learned:

- Importance of rapid response as soon as you think there is a need
- Criticalness of aerial assessment
- MAFs global foot print scope and scale
- We really needed our VSAT
- Importance of connection with national DR Ministry
- There is often flex from the CAA and Government in a DR



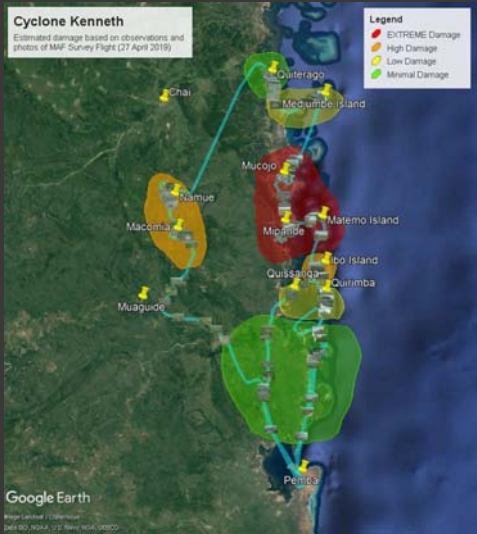
On 2. April, 2019, a 2nd
cyclone hit Mozambique -
Kenneth






- Rapid aerial survey
- (Like a tornado) tight band of damage and 20 to 30 villages just pretty much flattened

Cyclone Kenneth
Estimated damage based on observations and photos of MAF Survey Flights (27 April 2019)



Google Earth
Proportional to distance
SRS: WGS 1984, UTM, Zone 32N, Datum: WGS 1984

MAF



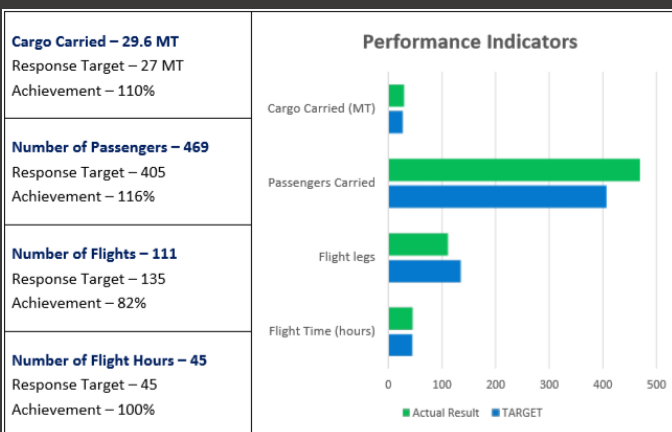



- Rapid flights to Ibo and Matemo islands and later morning and afternoon shuttles
- Food, shelter, relief workers

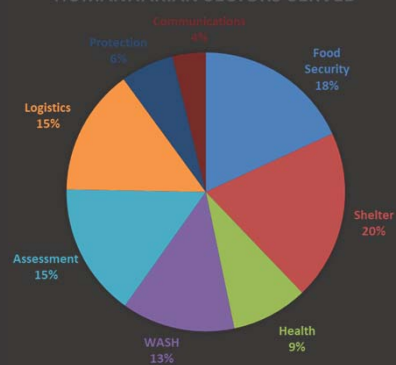
MAF



- VSAT on IBO Island within 36 hours of the Cyclone passing
- 3 weeks of continuous internet connectivity to responding agencies and many of the 9,000 residents of Ibo Island



HUMANITARIAN SECTORS SERVED



- Efficiency! ➔ KPI (& obviously SPI) - LF, listening & seek out agencies, integrating, coordinating
- Provide challenges: if you had air-transport, what else / where else would you do/go?
- Anthropogony matters!
- Try to look where no one else is looking, don't follow the main-stream
- ➔ How can we be **rapid, impactful and efficient** (not for us, but for responders thus benefitting the impacted)





MAF

MAF