



Protect, Conserve, Inspire

Annual Helicopter Report 2016



Introduction

2017 is the first year in history that the Maasai Mara in Kenya has had a dedicated helicopter for conservation. In 2015 Karsten Ree, owner of Karen Blixen Camp, purchased a new Robinson R44 Raven II in the USA and sent it to Kenya; around that same time he sent Mara Elephant Project (MEP) CEO Marc Goss to the U.S. for training to get his helicopter pilot's license. The MEP and Karen Blixen Camp Trust (KBCT) partnership developed with the goal to operate within the large and diverse greater Maasai Mara ecosystem to protect wildlife and more specifically elephants, a landscape species. The helicopter (5Y REE) has become a critical tool for moving elephants out of conflict areas, monitoring elephants over a large area, providing rapid security response, collaring elephants, deploying the Kenya Wildlife Service veterinarian to treat injured wildlife, and providing

Emergency Medical Services to remote communities. The helicopter program depends on donor support to keep it in the air and all donations go directly to conservation-related missions.

This report details all of 2016 flight hours the helicopter has completed.

Message from the pilot:

I am forever grateful to Karsten for the wonderful opportunity to, not only learn how to fly a helicopter, but also for buying one that MEP can use exclusively for conservation in the Mara. The project became a reality for me when the helicopter arrived at the KWS Airwing in Nairobi. Karsten sent an instructor from Denmark to train me specifically on mission flying, demonstrating how to avoid tricky situations and how to get out of them when necessary. The last year of flying in the Maasai Mara has been exciting, and totally changed MEP's ability to successfully complete conservation missions. The helicopter has proven itself time and time again and because of this effectiveness, conservation organizations, and the government continue to rely on the helicopter for support. This has helped further develop and cement the good working relationships MEP has with these partners and the local community. Operating the helicopter comes with a high cost, which means that it is a last resort in an emergency. In 2017, we will be looking at ways that this cost can be shared between conservation organizations; one such recent example is the Kenya Wildlife Service. They recognized how useful the helicopter is and have already provided 1,200 liters of AVGAS toward operations. It has been a huge privilege to fly the 5Y REE and I will work hard to ensure that this project continues. Thank you very much to all of the people who have made this a reality!

All flights in 2016:

Reacting to Conflict

This year MEP flew 55.89 hours mitigating human-elephant conflict (HEC) in the greater Mara ecosystem. When MEP gets a call from the community on our hotline about elephants in danger, a ranger team is sent to the location on the ground to move the elephants. They use their vehicle, flashbangs, spotlights and blank ammunition to persuade the elephants to leave the farms. If the ground team has exhausted all of their tools and the elephants are still in danger, they are able to call for the helicopter to help. Most of the flying time in response to conflict has involved moving elephants out of farmland and into conservation areas. In some of these instances crowds of angry farmers have been on the verge of killing the elephants and the helicopter has often diverted their attention. We believe it's safe to say that the intervention with the helicopter has directly led to saving elephant lives and protecting the local community.



Left: Angry farmers chase an elephant toward the Mara River. Right: Moving elephants out of a farm at dusk.

Elephant Monitoring:

In 2016 we flew 56.71 hours monitoring MEP's 22 collared elephants and their respective herds. MEP's core mission is to protect elephants across the ecosystem and to enhance our ability to do this, MEP has collared 22 elephants that are spread over a vast area. The collared elephants allow MEP to deploy rangers strategically, alert us of geo-fence breaches into conflict areas, and collect data on elephant movements to inform policy. MEP and KBCT believe that responsible elephant tracking involves aerial monitoring of all of the collared elephants each month. Through the monthly aerial monitoring flights we are able to collect valuable data on how many elephants the collars represent (approximately 600 individuals), proximity to livestock and settlements, herd composition, injured animals, and provide general security to the herds. During the monitoring flights, if we see that the elephants are in or close to a conflict area, we move them into safety.



Photographic evidence of an elephant herd collected during a monthly aerial monitoring operation.

Security:

MEP flew 23.4 hours for security-related issues, with the majority of these flights ensuring we can rapidly and strategically deploy rangers. The potential for the helicopter to be a target is high, and while spears and arrows (conflict cases) won't bring a helicopter down, rounds from a firearm certainly could. To mitigate this risk we always make sure we have intelligence on the ground before going into a conflict area. Additionally, MEP has had two donated body armor vests, which we can unfold to sit on while in the helicopter. In 2016, we deployed rangers to three carcass sites, two poacher incursions, and one stock theft. Additionally, we have deployed intelligence rangers to key locations across the county, deployed the tacker dogs from Mara Conservancy and conducted aerial patrols with KWS personnel.



Left: Karsten joins the deployment of tracker dogs. Right: Deploying KWS rangers.

Elephant collaring:

We flew 16.51 hours for collaring five elephants: Kiambi, Ivy, Bobo, Courtney and Ol Choda. The helicopter provides an excellent vantage point from which the vet can dart the elephants, especially on broken ground or in areas with thick cover.



Collaring Ol Choda in the Pardamat Area.

Sky Vet Services

We flew 22 hours for vet services on 10 missions to treat injured elephants, a rhino and a giraffe. In these cases the injured wildlife were in inaccessible areas for ground teams to respond.



Treating an injured rhino in the Maasai Mara National Reserve.



KWS vet, Dr. Limo treating injured elephants.

Emergency Medical Services:

We flew 3.8 hours on four missions bringing injured people to hospital. The closest hospital is Tenwek Hospital, which has a landing spot next door at the school. The school kids get excited when we land there posing a slight risk of injury to them or potential damage to the helicopter. We have made arrangements with the head teacher who has implemented safety rules for the children.



Left: Carrying a man injured by an elephant in November. Right: Students at Tenwek Boys School.

Donor relations:

We flew 49 hours with donors, some of which was with Karsten, for short safaris around Kenya. Other flights included, Tusk Trust, World Wildlife Fund, DC, ESCAPE, MMWCA, Conservation Capital, and Google X. All flying done for “Donor Relations” are paid for by the individual organization and **not from funds raised** for conservation flying.

Private:

The pilot flew 8.5 hours privately. This included going fishing in Kericho, two trips to Nairobi, one trip to Naivasha, and a trip to Shimba Hills while at the coast with Karsten. All these flights were paid for by the pilot personally.

Maintenance:

We flew 13.43 hours back and forth to Nairobi to comply with every 100-hour maintenance requirement.

General Support:

We flew 11.5 hours for general support of the area that MEP operates in. These flights included going to key meetings with partners and checking on two bush fires.



Fire in the Olare Orok Conservancy.

Green Park:

Green Park and KWS contacted MEP about assisting to move out 20 problem buffalos from their area in Naivasha. We effectively moved 17 buffalo out during two missions totaling 18.22 hours. Green Park donated the funds to cover this conservation related flying cost.



One of the buffalos being moved out after being darted.

Hanger

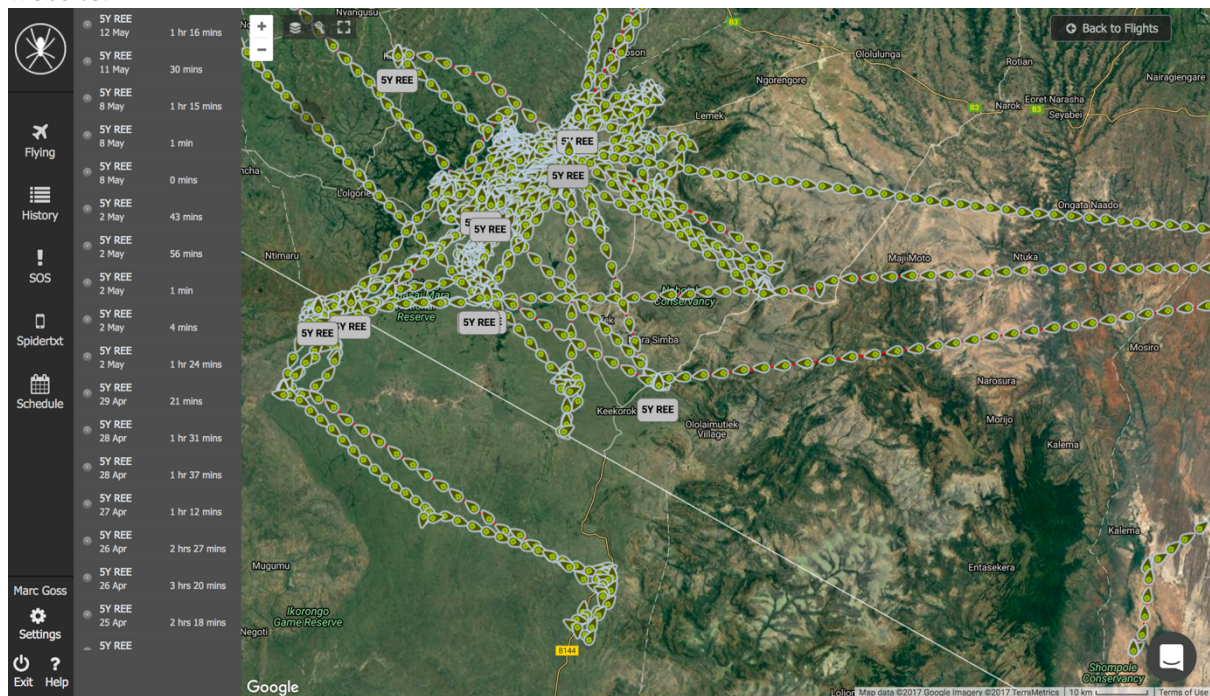
With the generous support from Margret McCormick we built a hanger to secure the helicopter at MEP HQ. The hanger is built around a steel frame using Farroh cement walls and large steel doors open onto a 20-meter concrete apron leading to landing pad. The building is finished with Mara stone on the outside, which fit in with the ranger mess.



Tracking and Reporting

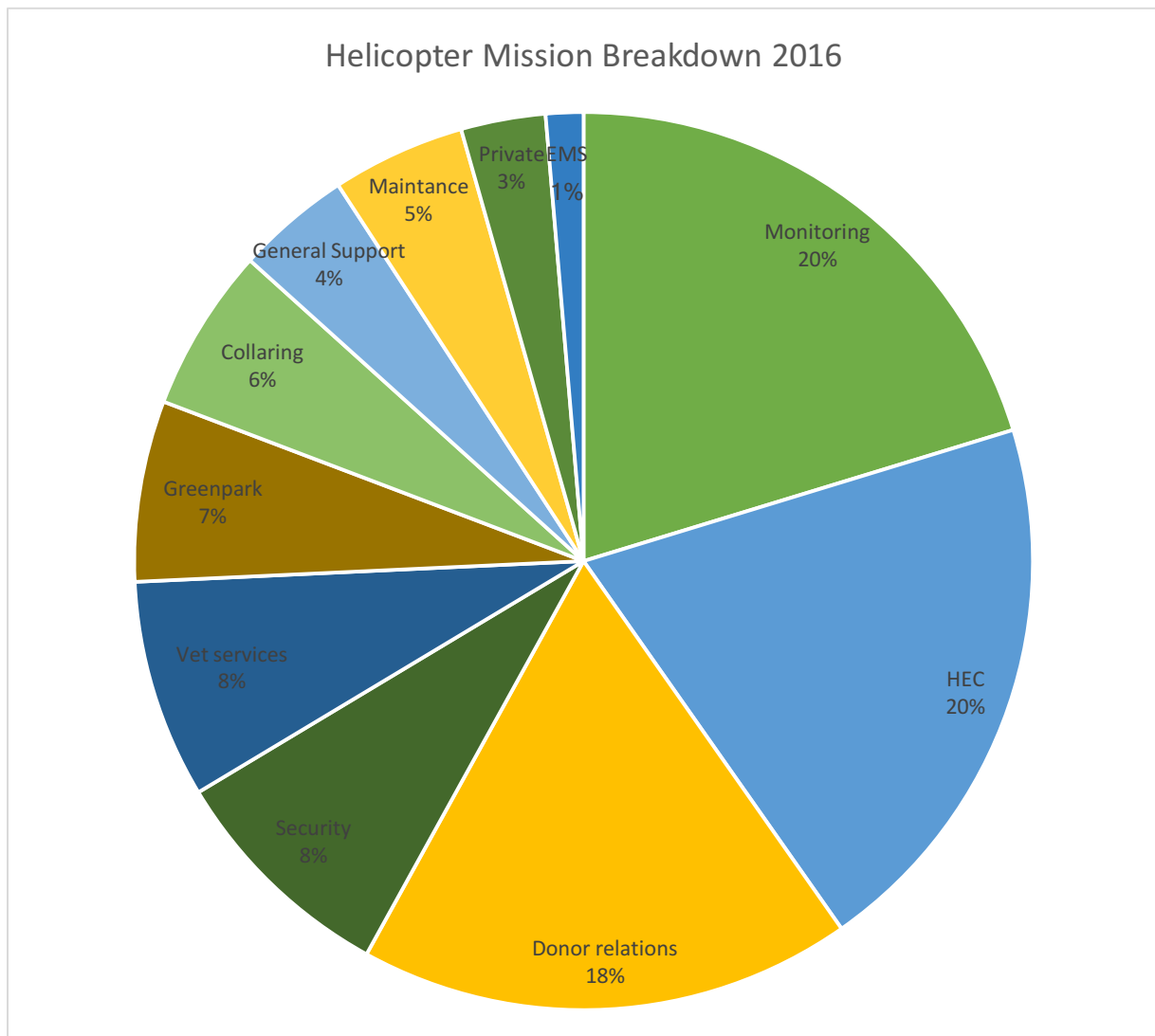
All flights are recorded via the “Spidertracks” on the 5Y REE helicopter, which is an iridium-based tracking system. The system gives details on all flights and updates coordinates every two minutes. Spidertracks also has an emergency button function, which sends an alert email to selected recipients. Finally, a new addition is Spidertxt, which allows the pilot to send texts via a smart phone through the tracker to a recipient and vice versa. This is very useful when sending coordinates of collared elephants when the pilot does not have a phone signal. The helicopter tracks are stored on the Domain Awareness System where we keep all of our elephant tracking data.

The pilot records all flights and writes a detailed breakdown of each flight, which is then published via a monthly report sent to all donors and partners as well as posted on the Resources page of our website.



A screenshot of the Spidertracks system.

2016 Mission Chart



Fundraising and Financial Narrative:

Financial Highlights from 2016:

- The running cost of the helicopter has increased from \$300 to \$400 per hour. This will ensure that we are in a position to replace the helicopter after five years or 2,300 hours on the airframe.
- Expenditure in 2016 does not include the KWS service charges at approximately \$2,500 per service for the 3 x 100 hour service interval. These payments will be made in early 2017
- Does not include any amounts received after December 25, 2016.
- The largest donations were as follows:
 - Sue Anchutz-Rodgers - \$35,000
 - Margret McCormick (Hanger) - \$10,000
 - Suzie Fehsenfeld - \$7,500
 - Rita Casabases - \$5,500
 - Theodore Solso - \$5,000
 - Claire Bolles (Hanger) - \$3,000
 - Lowman family Fund - \$2,500
 - Generosity.com (individuals) - \$7,146

- Individuals Cumulative (website: PayPal) - \$4,188

Helicopter Account	USD
Income 2016	\$79,834
Expenditure: Fuel, oils, spares (excl. KWS Service) KBCT payment	\$36,547
Expenditure Hanger: (completion bill expected in early 2017)	\$10,191
Total	\$46,738
Balance Carried forward to 2017	\$33,096

Fundraising:

We continue fundraising through publishing pictures, videos, and stories on MEPs Facebook page and website about the work the helicopter continues to do on the front line of conservation in Kenya.

Focus for 2017:

- Develop Standard Operating Procedures
- Raise \$150,000 for conservation flying. This will allow for approximately 30 hours of flying time per month.
- Develop a joint funding model with conservancies and government agencies
- Increase operating costs to reflect cost of buying a new helicopter after five years
- Revisit insurance options