



H.H.The Late Sheikh Zayed Falcon Release Program (SZFR)

For Saker Falcon Task Force – Stakeholders’ Action Planning
Workshop

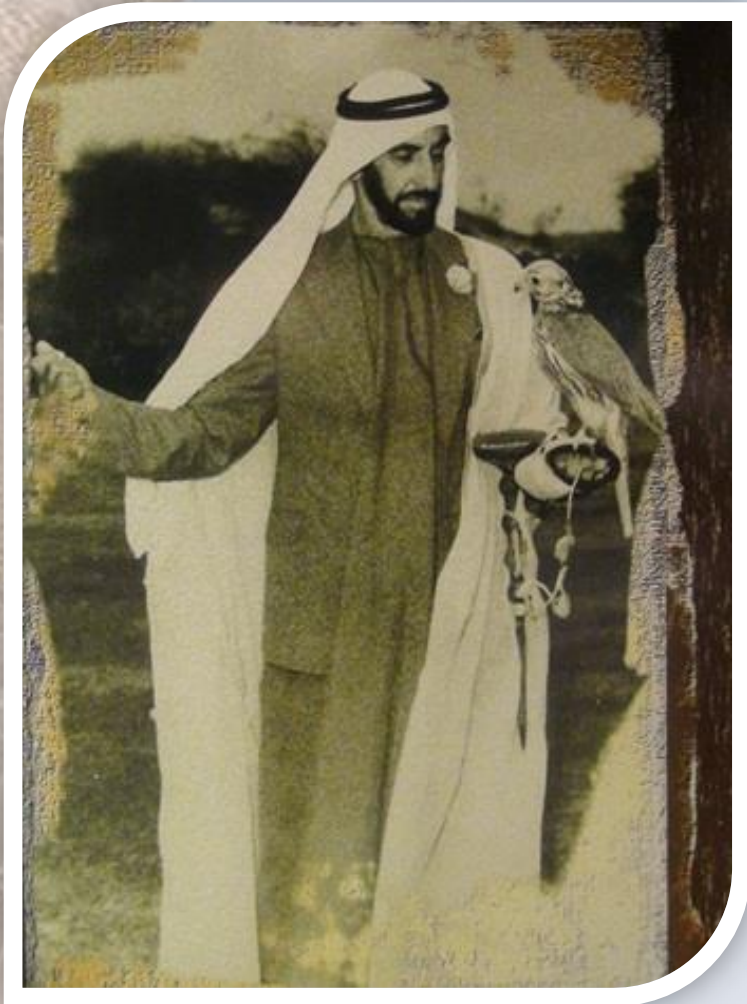
September 10th, 2013

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History

- 1995: Establishment of SZFR by H.H. The Late Shk. Zayed bin Sultan Al Nahyan
- Aim: to reintroduce wild saker and peregrine falcons back to the wild after using them for sustainable falconry in UAE => support wild falcon conversation
- Donation of wild saker and peregrine falcons by the Emirati falconers to SZFR
- 2002:
 - UAE became signatory of the CITES convention
 - Use of wild falcons for falconry was prohibited



Overview from 1995 – 2013 : 1,545 falcons

Year	Location	Saker Falcons			Peregrine Falcons		
			PTTs	Total		PTTs	Total
1995	Kharan, Pakistan	85	4	89	22	0	22
1996	Gilgit, Pakistan	65	6	71	20	0	20
1997	Issyk-Kul, Kirgistan	35	1	36	24	3	27
1998	Issyk-Kul, Kirgistan	37	4	41	30	2	32
1999	Gilgit, Pakistan	38	4	42	44	4	48
2000	Gilgit, Pakistan	33	2	35	78	2	80
2001	Chitral, Pakistan	10	1	11	65	5	70
2002	Chitral, Pakistan	27	3	30	75	3	78
2003	Gurgan, Iran	44	2	46	56	4	60
2004	Gilgit, Pakistan	27	5	32	49	2	51
2005	Chitral, Pakistan	39	2	41	47	2	49
2006	Chitral, Pakistan	26	4	30	34	0	34
2007	Gilgit, Pakistan	19	5	24	40	1	41
2008	Skardu, Pakistan	14	2	16			0
	Gwadar, Pakistan			0	39	3	42
2009	Sebina, Kazakhstan	21	7	28	28	0	28
	Altai Mountain, Kazakhstan	1	0	1	18	3	21
2010	Ust-Kamenogorsk, Kazakhstan	32	5	37	19	3	22
2011	Kurchum, Kazakhstan	20	5	25	21	5	26
2012	Kurchum, Kazakhstan	40	4	44	17	5	22
2013	Kurchum, Kazakhstan	42	5	47	41	5	46
Total		655	71	726	767	52	819





Falcon Release Program

Release sites locations

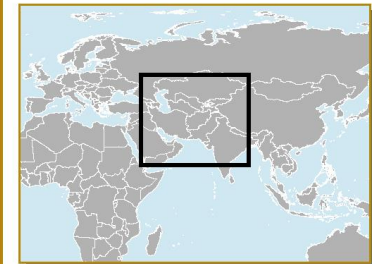


Legend

- Release site (n=74)

0 250 500 750 1,000
Km

Map created on 05 September 2013
Map Coordinate System: WGS 1984
Source: NARC, 2013



Source of Saker Falcons for SZFR

Injured wild Sakers on migration route => rehabilitation program

Donated
by falconers from UAE,
but also some from
Saudi Arabia, Qatar,
Kuwait, Bahrain

Confiscated by CITES
Authority of Ministry of
Environment and Water



All age groups
Possible different genetic origins
NO release of hybrid falcons
About 95% female falcons



Medical Examinations

- First examinations:
 - Physical examination
 - Blood hematology and biochemistry
 - Crop and feces: parasitology
 - Radiology
 - Endoscopy
 - Bacteriology
 - Virology
 - Insertion of subcutaneous PIT tag (microchips)
 - Fixing of rings

Ongoing examinations throughout their time at ADFH and training camp



Use of Satellite Transmitters

- Between 5-10 falcons selected as satellite transmitter carriers
- Transmitters fixed as backpacks with teflon harness
- Big sakers with high body weight
- 1 male saker falcon was fitted with satellite transmitter in 2011
- Weight of transmitters:
 - For first releases: 35 g battery and solar powered Microwave ARGOS transmitters
 - 2007 + 2008: 22 g and 30 g solar powered
 - 2009 + 2010: 18 g solar powered
 - Since 2011: 12 g and 9.5 g solar and battery powered
- All transmitters have been tested before fixing them to ensure they are working without fault
- Sakers tolerate transmitters usually well



Fitness Training

At ADFH: large free-flight aviary as pre-training

- To reduce contact to humans
- To enhance hunting abilities

At a dedicated training camp:

- Flight training 2 x day
- Special training for falcons with transmitters
- Feeding 2 x day to increase weight
- Feedback of falconers to ADFH of falcons' flight performance
- Not well performing falcons are returned to ADFH for immediate examinations



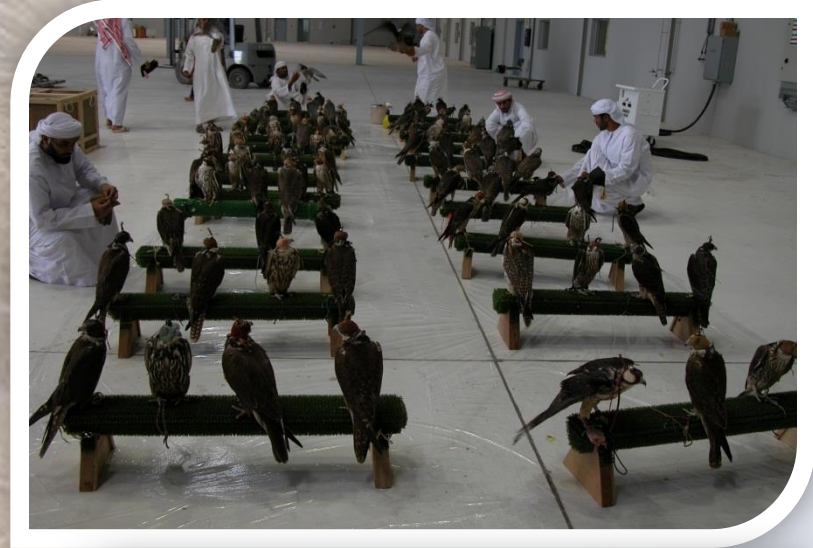
Final Selection of Sakers

- Medically fit until time of boarding the airplane
- All tests result must be negative
- Excellent to good training results
- High body weight
- Falcons that are not fully ready at the time of release or came to late => kept for the next year's falcon release



Last Pre-Release Preparations in Abu Dhabi

- Complete CITES export and import documentation
- Feather repairs and coping of beak and talons
- Double checking of rings and microchips
- Finalization of list with all falcons
- Several ice boxes with quails as food
- Cool boxes with medicines
- Medical equipment



Pre-Release Preparation at Release Site

Since 2010

- Pre-release time at release site: between 3-6 weeks
- To give sakers the chance to adept to climate and environment of release area
- Staff: falconers and veterinary technician
- Daily pre-release falcon training
- Daily physical examinations as well as crop and feces parasitological tests
- Daily control of body weight and feeding



Pre-Release Documentation

- Lists with serial number, hospital ID, date of admission, ring and microchip number, found/donated by/ confiscated, last country lived in, city, remarks
- Individual files for each saker: front and backside picture, measurements of wings, tails, feet, toes, medical records, confiscation documents (if any)



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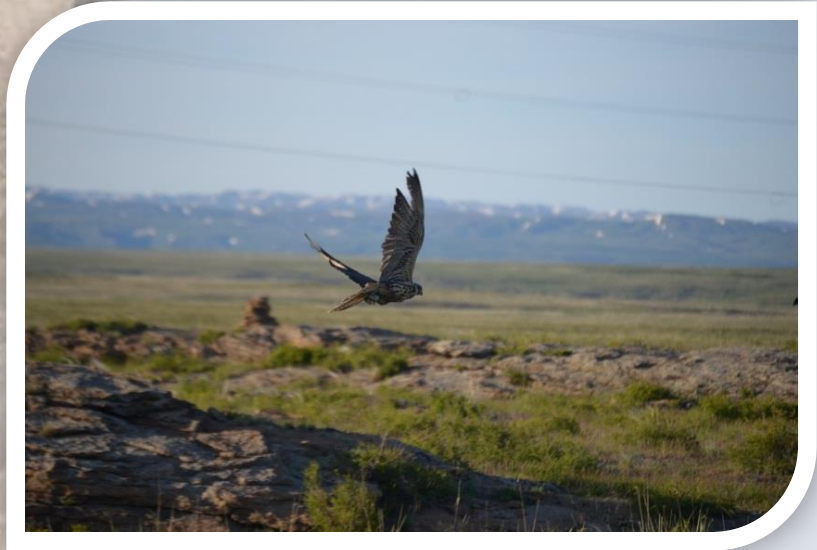
HH The Late Sheikh Zayed Falcon Release Project 2013



Species	Falco cherrug	Hospital No.	21489																				
Sex	Female	Microchip No.	123731486A																				
Age	FCAYF	Leg Ring No.[L]	SZFR S-1																				
Weight	1078	Leg Ring No.[R]																					
Wing Length(m)	<table border="1"> <thead> <tr> <th>P10</th> <th>P9</th> <th>P8</th> <th>P7</th> <th>P6</th> <th>P5</th> <th>P4</th> <th>P3</th> <th>P2</th> <th>P1</th> </tr> </thead> <tbody> <tr> <td>360</td> <td>375</td> <td>372</td> <td>355</td> <td>332</td> <td>310</td> <td>260</td> <td>230</td> <td>210</td> <td>190</td> </tr> </tbody> </table>			P10	P9	P8	P7	P6	P5	P4	P3	P2	P1	360	375	372	355	332	310	260	230	210	190
P10	P9	P8	P7	P6	P5	P4	P3	P2	P1														
360	375	372	355	332	310	260	230	210	190														
Wing Width To S5	275	Tail Step(mm)	36																				
Tail Length(mm)	240																						
Leg Tarsus(mm)	72	Inner Digit1(mm)	29																				
Hallux Digit1(mm)	25	Outer Digit4(mm)	35																				
Center Digit3(mm)	52																						
Diameter of Tarsus at Midpoint(mm)	9																						
Date Measured	15-Apr-2013	Measured By	JN/RR																				

Release

- Sakers to be released in mountainous areas
- On average 2 sakers released in one location
- Release mostly when spotting suitable prey
- Uninhabited areas without/few electrical pylons
- Suitable climatic conditions



Release and Post-Release Documentation

- During release: list with relevant information:
 - Age, gender, ring and microchip number,
 - Release date, group, latitude, longitude, height,
- Post release:
 - Data submission for satellite tracking
 - Flight maps

**LIST OF FALCONS FOR H.H. THE LATE SHEIKH ZAYED FALCON RELEASE PROGRAM 2013
(KURCHUM, KAZAKHSTAN)**

SN	HID	RING No	PIT NUMBER	SPECIES	SEX	AGE	DATE	GROU P	HEIGHT (feet)	LATITUDE N	LONGITUDE E
61	20830	SZFR S-16	900074001532922	Saker	F	1st	18.05.2013	17	1918	48° 39.246'	084° 10.586'
62	20852	SZFR S-17	900074001533043	Saker	F	1st	18.05.2013	2	3108	48° 46.345'	084° 54.326'
63	20817	SZFR S-18	900074001521206	Saker	F	1st	18.05.2013	18	1958	48° 37.982'	084° 08.447'
64	20853	SZFR S-19	900074001533027	Saker	F	3rd	18.05.2013	15	2359	48° 39.871'	084° 17.304'
65	20831	SZFR S-20	900074001532916	Saker	F	1st	18.05.2013	8	2231	48° 38.471'	084° 29.963'
66	20816	SZFR S-21	900074001521218	Saker	F	1st	18.05.2013	1	2833	48° 45.583'	084° 52.448'
67	21696	SZFR S-23	900074001521453	Saker	F	1st	18.05.2013	3	2753	48° 44.269'	084° 40.195'

Survival Rates

- Survival rate difficult to determine with certainty because some PTT are still sending data but not moving and then have the status “On the ground”
- Survival rate after first month: 88% (for 1999 to 2010)
- Monthly survival in Kazakhstan is higher with 46% than in Pakistan with 25%
- 30 % unknown fate due to sudden stopping of satellite data transmission
- 12 falcons (total) suspected to be trapped but no evidence
- Falcons are well known to be able to remove their transmitters which makes accurate estimate of survival challenging => less frequent in sakers



Flight Paths

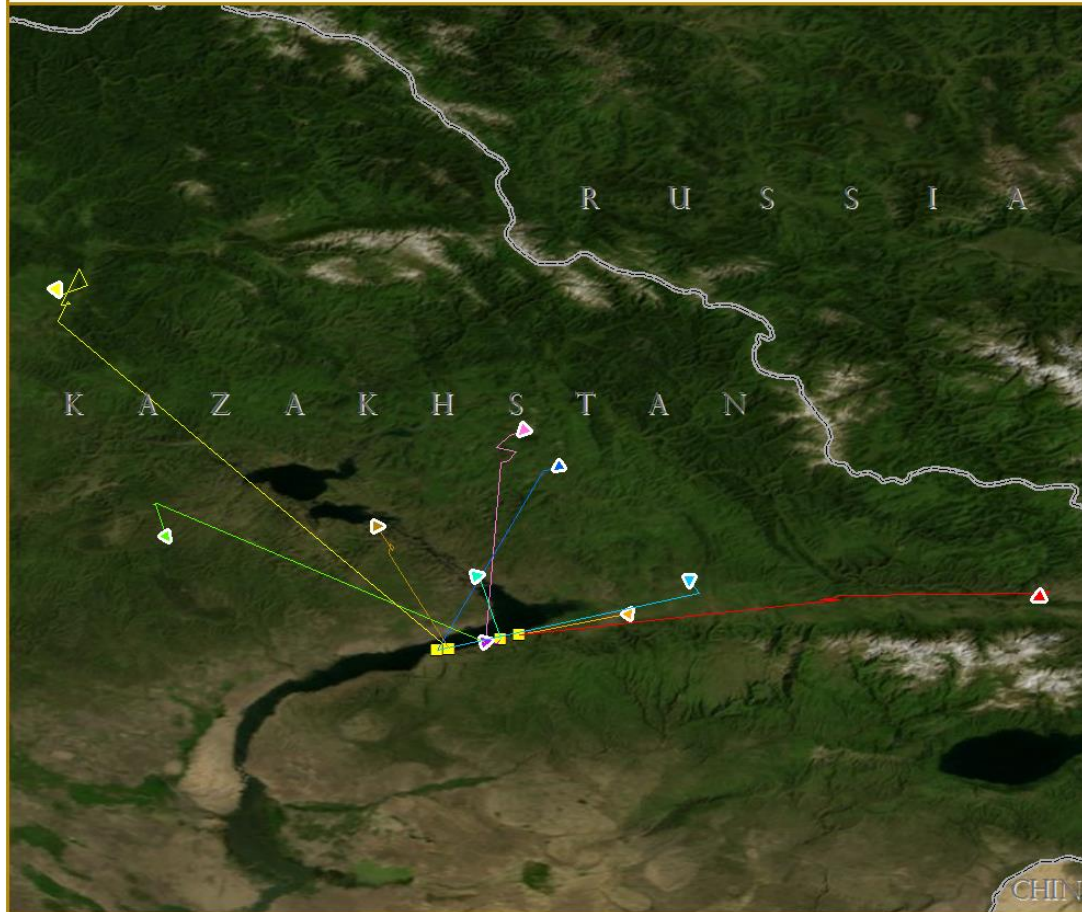
- Farthest distance reached after 10 days post-release: 247 ± 263 km
- Saker falcons tend to disperse farther than peregrine falcons in the first 10 days with 327 km vs 176 km
- After 1 months: 817 ± 732 km
- Average maximum dispersion: 1256 ± 990 km





Movements of falcons released in Kazakhstan in 2013

10 falcons released on 17 May 2013



Legend

Movements of falcons since the release

- ▶ 73290, Saker Falcon
- ▶ 128468, Peregrine Falcon
- ▶ 128469, Peregrine Falcon
- ▶ 128470, Peregrine Falcon
- ▶ 128471, Peregrine Falcon
- ▶ 128568, Saker Falcon
- ▶ 128569, Saker Falcon
- ▶ 128570, Peregrine Falcon
- ▶ 128571, Saker Falcon
- ▶ 128572, Saker Falcon
- Release site

0 30 60 Km

Map created on 21st of May 2013
Map Coordinate System: WGS 1984
Source: NARC, 2013



Preferred direction of dispersion

- North-East in Pakistan, no preferred direction for release in Kazakhstan
- Secondarily South-West

⇒ Main flight direction of birds migrating between Central Asian countries and wintering grounds in Arabia and Africa turning around Himalayan mountains

⇒ Also main wind direction => falcons can benefit from favorable winds and reduce their travel energy

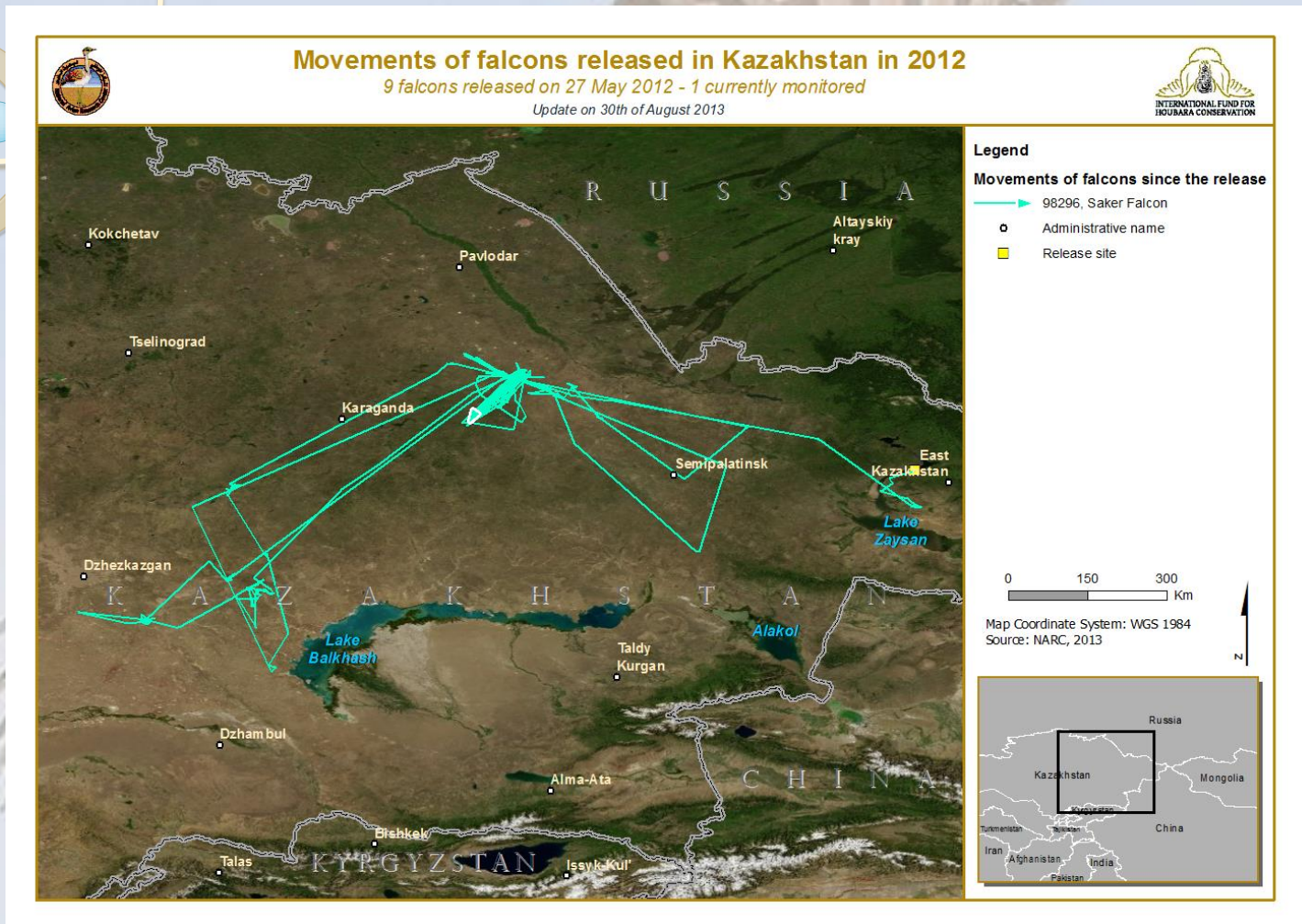


Examples of Released Falcons

- Longest recorded surviving saker: female with 1914 days (= 5 years and 3 months) survival being released in Gilgit, Pakistan in 2002
- Peregrine falcons moved 2000-3000 km to Siberia, stayed there for the whole breeding time and migrated back => no clear information for sakers
- One peregrine falcon was released on May 5th 2009 in Kazakhstan and spotted in the third week of January 2010 in Gujarat, India
- 2012: One peregrine falcon travelled 14,243 km up to mid December 2012



Map of Saker female released in 2012 in Kazakhstan



=> still alive

=> travelled a total distance of **12,322 km** until 30.08.2013

Conclusion

- Lot of changes have been done to improve the SZFR program
- Learning efforts from our previous experiences
- To serve as help and baseline to develop international guidelines for the release of saker falcons
- To serve as role model for release programs in other countries
- To investigate possibilities of improved release processes

















**Thank you very much for your
attention!**

