

1800 K Street, NW
Suite 400
Washington, DC 20006

Phone: 1.202.775.3270

Fax: 1.202.775.3199

Web:

www.csis.org/burke/reports



Air Combat Trends in the Afghan and Iraq Wars

Anthony H. Cordesman

Arleigh A. Burke Chair in Strategy

CSIS

CENTER FOR STRATEGIC &
INTERNATIONAL STUDIES

Burke Chair
in Strategy

March 11, 2008

www.csis.org |

The Role of Airpower in the Iraq and Afghan Wars - I

- **Much of the reporting on the Iraq and Afghan Wars focuses on the ground dimension. This is the most direct form of combat, produces the most casualties, and involves the most serious political problems. The fact remains, however, that Iraq and Afghanistan are air wars as well, and wars where airpower has also played a critical role in combat.**
- **This briefing presents summary data on the patterns in the air side of the conflict. It does, however, only present part of the story. The data shown are for fixed wing aircraft. Helicopters have played a critical role in both wars. They have been a major source of close air support, tactical movement, logistics and resupply, and medical evacuation. They have provided a quick reaction capability in many missions and greatly reduced the vulnerability of forces and contractors that would otherwise have to move by land. If unclassified breakouts of helicopter sortie and combat engagement data were available, it seems likely that the sortie patterns shown in the following charts would more than double. Certainly, the fact that fixed and rotary wing aircraft have become key partners in what is an AirLand battle in both wars would be far clearer.**
- **The data shown also have limited for fixed wing aircraft. They only seem to count manned aircraft, ignoring the steadily more important role of UAVs and UCAVs. There are no breakouts dealing with sensitive Special Forces missions either in the air or in inserting forces in the field. The counts seem to omit at least some sensitive electronic warfare missions. The data only count some allied air sorties, and ignore the role of allied airlift and charters entirely.**

The Role of Airpower in the Iraq and Afghan Wars - II

- **These data also do not reveal one of the most important patterns in the use of airpower in both wars. There are no counts of the numbers of attack sorties that had to be canceled because of the risk of civilian casualties and collateral damage, and the munitions data do not show the emphasis put on limiting the size of munitions or altering the aim point to reduce civilian casualties and collateral damage when attack missions were carried out. A great deal of media reporting focuses on claims that civilians were killed or wounded. Some of these claims are correct, but many simply report what is claimed by the Taliban, Al Qa'ida, and other sources; or by voices on the ground that claim not to have ties to insurgent activity in areas where UAVs, ground observers, and other IS&R (intelligence, surveillance, and reconnaissance) data make it clear that insurgents were present in the area and active at the target. Tragic mistakes are inevitable in war, but no one can visit the command facilities involved, watch IS&R activity in practice, and see the way in which targets are being selected or rejected without being impressed by the fact that “precision” has been combined with “restraint.”**

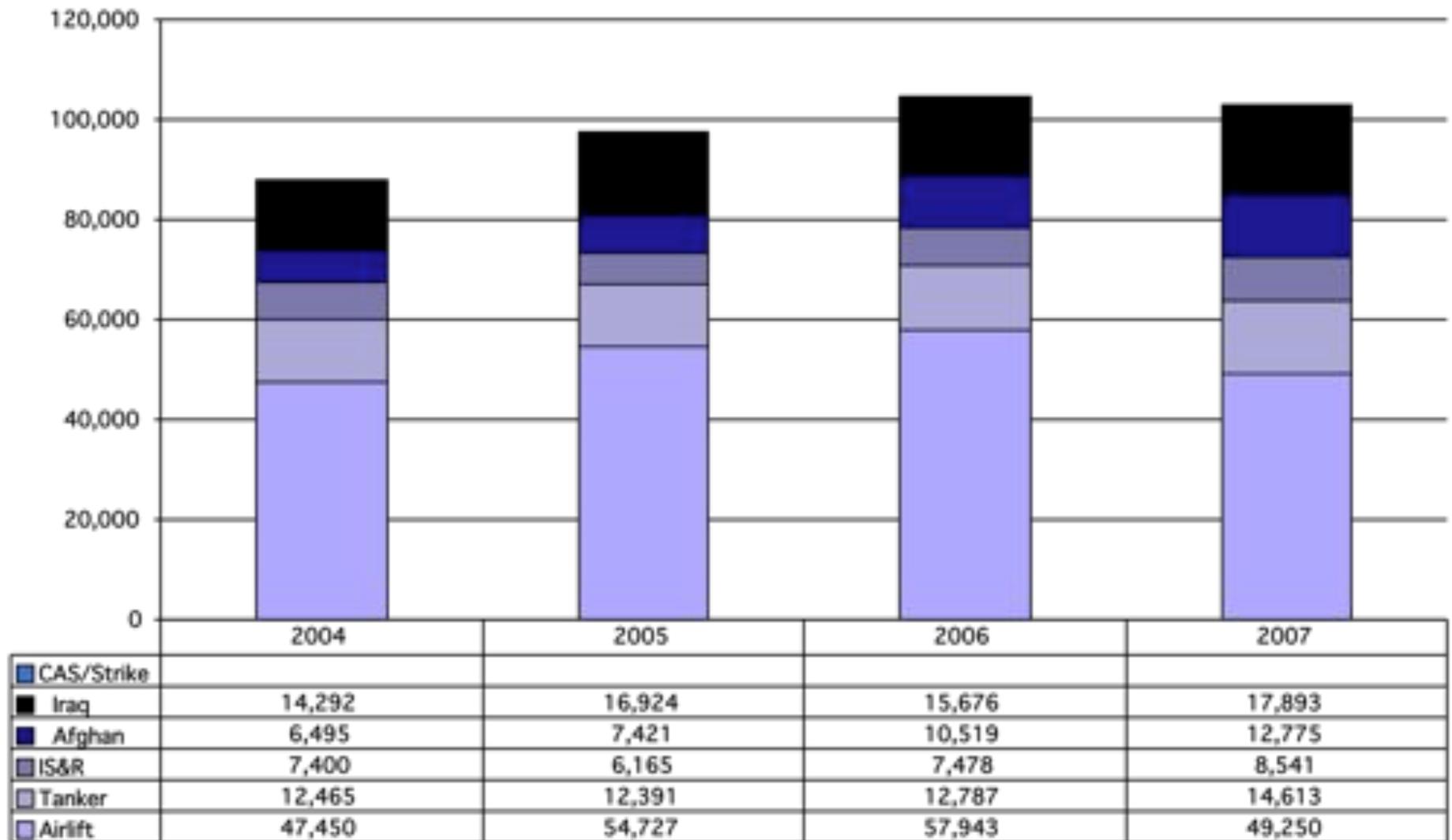
Total Fixed Wing Air Activity in Iraq and Afghanistan

2004-2007 Combined Forces Air Component Commander Airpower Statistics

	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>
<u>Tanker</u>				
Sorties	12,465	12,391	12,787	14,613
Fuel offloaded (millions of lbs.)	740	778	871	865
Receivers	N/A	N/A	42,083	73,174
<u>Intelligence, Surveillance, Reconnaissance</u>				
Sorties	7,400	6,165	7,478	8,541
<u>Airlift (US Air Force Only)</u>				
Sorties	47,450	54,727	57,943	49,250
Cargo (short tons)	150,580	113,359	152,084	165,202
Passengers	702,000	933,806	1,099,464	999,719
<u>Airdrop</u>				
Troop supplies airdropped (lbs.)	N/A	2,000,000	3,500,000	6,790,000
<u>Close Air Support/Precision Strike</u>				
OIF: CFACC CAS Sorties	14,292	16,924	15,676	17,893
OEF: CFACC CAS Sorties	6,495	7,421	10,519	12,775
OIF: CFACC CAS Strikes (munitions dropped)*	285	404	229	1,119
OEF: CFACC CAS Strikes (munitions dropped)*	86	176	1,770	2,926

* Does not include 20mm and 30mm rounds and unguided rockets

Afghanistan vs. Iraq: CFACC Annual Sorties by Type



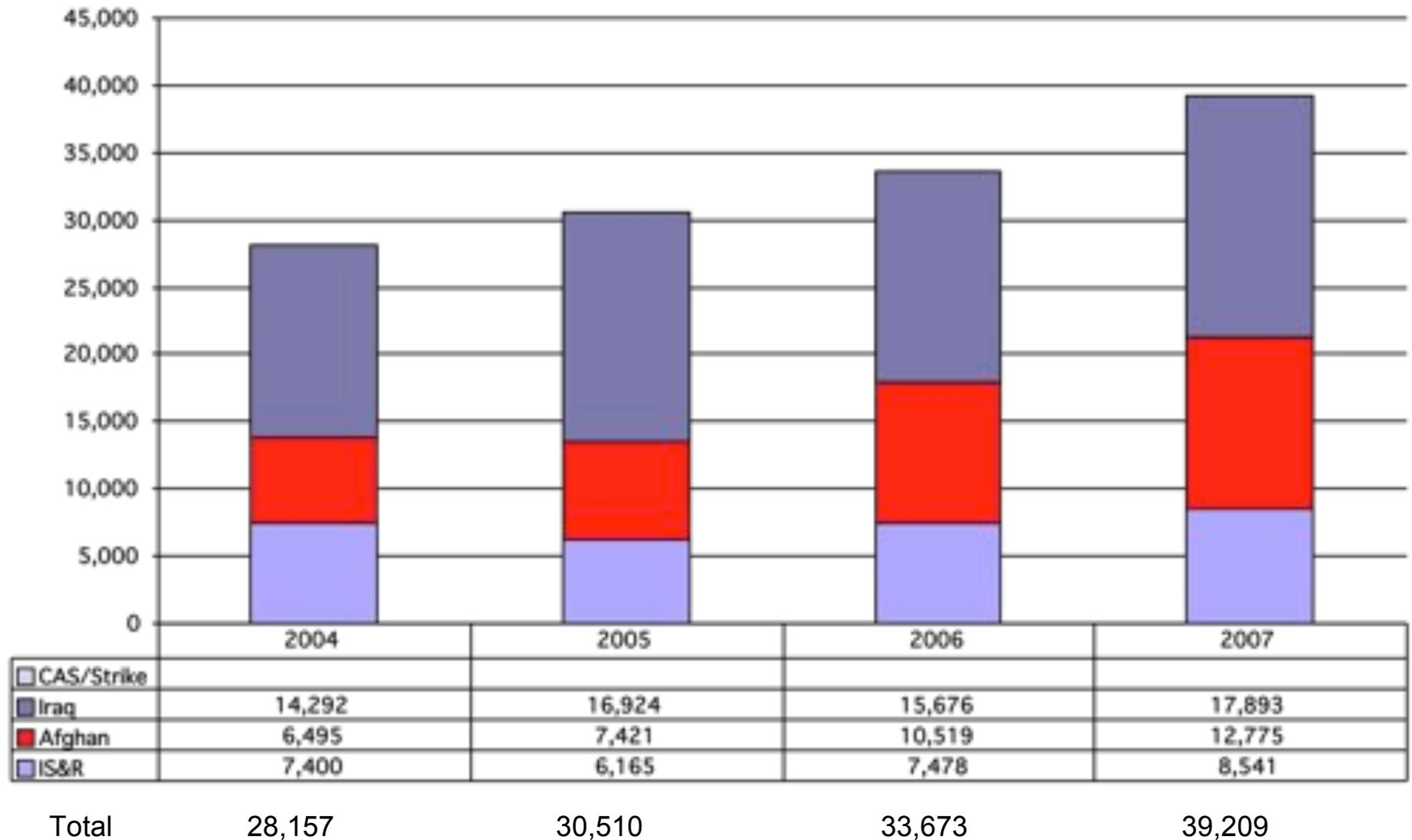
Source: CENTAF CAOC, 5 December 2007

Overall Patterns in Air Combat Activity in Iraq and Afghanistan

The Rising Role of Airpower in Combat

- **Steady rise in combat sorties.**
- **The rise in Iraq has been driven largely by the surge.**
 - **40% rise in fixed wing combat sorties since 2004.**
 - **25% rise in CAS/Strike sorties in Iraq since 2004**
 - **97% rise in CAS/Strike sorties in Afghanistan since 2004.**
- **The rise in Afghanistan has been driven by a far more steady increase in pressure from the Taliban since 2005.**
- **In both wars, only a limited number of combat sorties actually dropped unguided or guided heavy munitions. Most only used guns, small rockets or did not use a weapon.**
 - **Percentage using munitions has increased with the intensity of combat in both wars.**
 - **Still only 23% in Afghanistan in 2007; 6% in Iraq.**

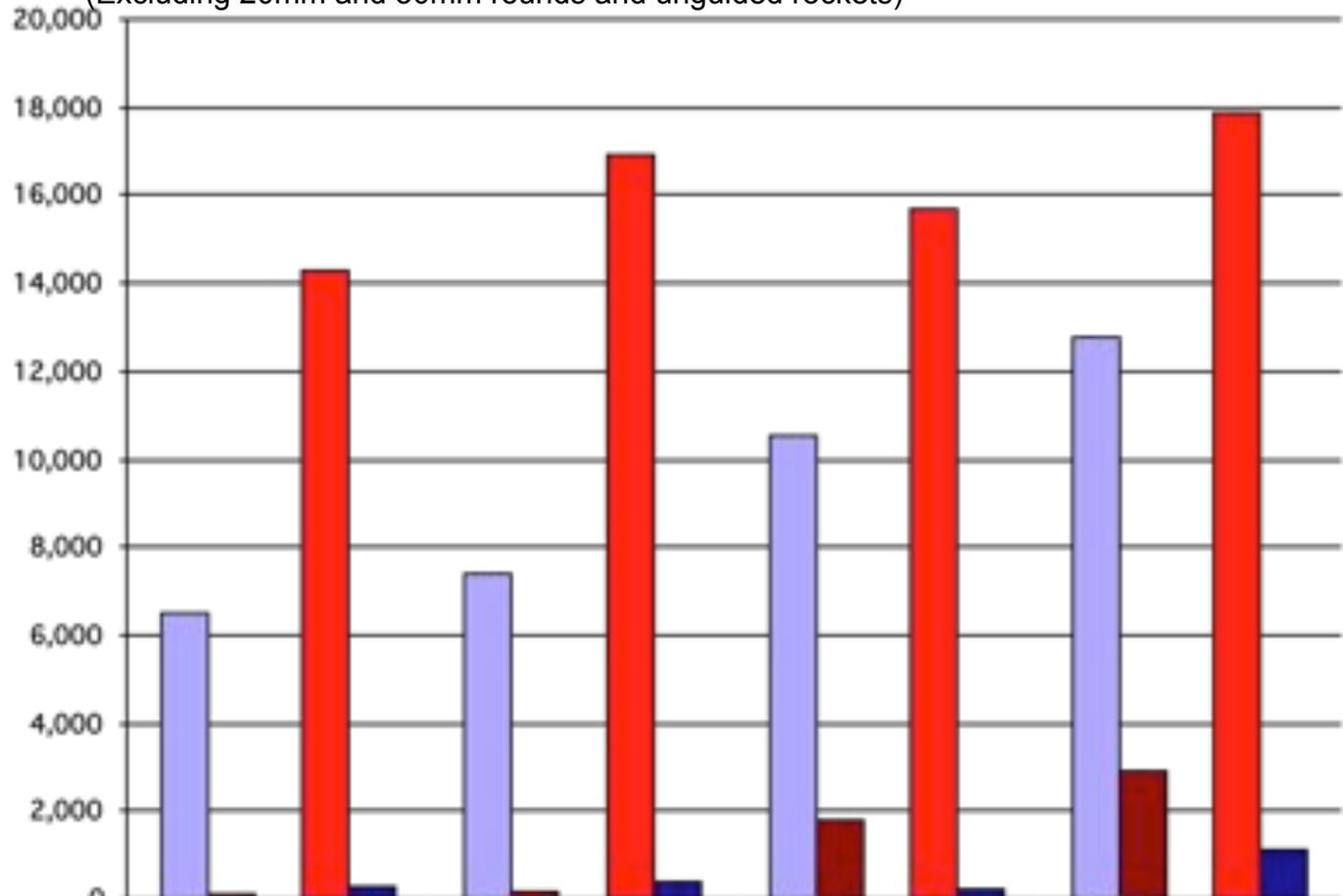
Total Afghanistan and Iraq Annual Combat Sorties: 2005-2007



Source: CENTAF CAOC, 5 December 2007

CFACC Total CAS Sorties and Sorties with Munitions Dropped: Iraq vs. Afghanistan

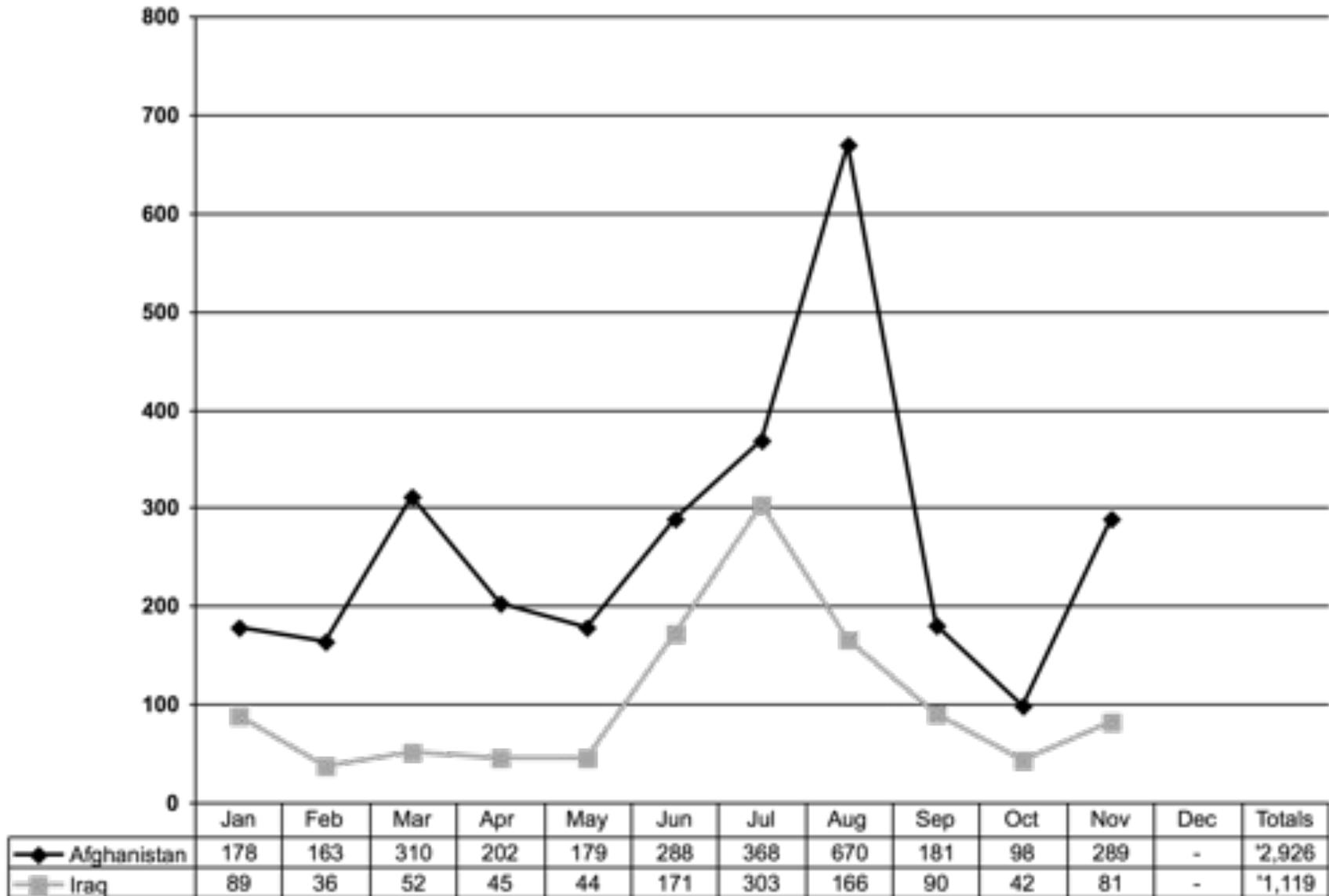
(Excluding 20mm and 30mm rounds and unguided rockets)



	2004	2005	2006	2007
Total CAS sorties (Afg.)	6,495	7,421	10,519	12,775
Sorties with munitions dropped (Afg.)	86	176	1,770	2,926
.				
Total CAS sorties (Iraq)	14,292	16,924	15,676	17,893
Sorties with munitions dropped (Iraq)	285	404	229	1,119

CAS Sorties with Munitions Dropped: Iraq vs. Afghanistan

(Excluding 20mm and 30mm rounds and unguided rockets)



Source: CENTAF CAOC, 5 December 2007

The Role of Fixed Wing Tankers and Airlift

The Role of Tankers, Airlift, and Air Drops

- The data do not cover the initial deployments, areas where airlift also played a critical role.
- There is no way to measure the number of land movements or personnel who were not exposed to IEDs, ambushes and land attacks.
- It is clear that tanker and airlift missions have been critical “enablers” in the recent fighting.
- Tanker sorties have not increased strikingly in recent combat, although they rose by some 15% in 2007. What is striking, however, is that the number of receiving aircraft increased sharply as combat became more intense that year, rising from 42,083 to 73,175 (some 74%)
- Airlift has played relatively constant role as a critical source of troop movements and supplies.
- The cargo delivered by airdrops, which play a critical role in dealing with the lack of road and poor terrain in Afghanistan, increased by 75% in 2006, and by over 90% in 2007.

2004-2007 Tanker and Airlift Activity in Iraq and Afghanistan

	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>
<u>Tanker</u>				
Sorties	12,465	12,391	12,787	14,613
Fuel offloaded (millions of lbs.)	740	778	871	865
Receivers	N/A	N/A	42,083	73,174
<u>Airlift (US Air Force Only)</u>				
Sorties	47,450	54,727	57,943	49,250
Cargo (short tons)	150,580	113,359	152,084	165,202
Passengers	702,000	933,806	1,099,464	999,719
<u>Airdrop</u>				
Troop supplies airdropped (lbs.)	N/A	2,000,000	3,500,000	6,790,000

* Does not include 20mm and 30mm rounds and unguided rockets

2004-2007 Combined Forces Air Component Commander Airlift and Airdrop Statistics

Airlift Records

- | | |
|---|-------------------|
| ■ 17 February 2006—largest amount of cargo moved in a day | 3.7 million lbs. |
| ■ March 2006—largest amount of cargo moved in a month | 60.9 million lbs. |
| ■ 19 September 2007—largest number of passengers moved in a day | 5,500 |
| ■ January 2006—largest number of passengers moved in a month | 103,000 |

Airdrop Records

- | | |
|---|---------------|
| ■ 5 June – 4 July 2006—most airdrops in a 30-day period | 64 |
| ■ 5 June – 4 July 2006—most weight dropped in a 30-day period | 908, 032 lbs. |
| ■ 4 July 2006—most drop zones in one day | 11 |
| ■ 4 July 2006—most weight dropped low-level in one day | 115,137 lbs. |

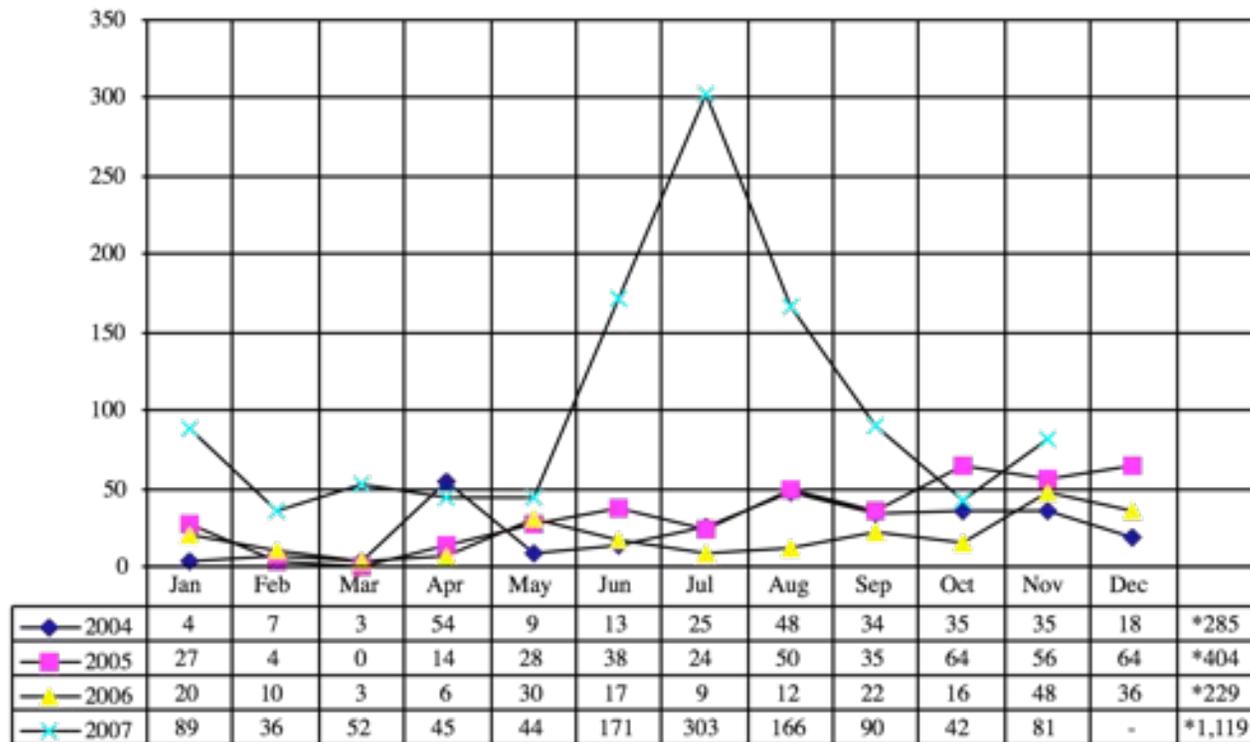
Patterns in Air Combat Activity in Iraq

Combat Trends in Iraq

- **No major increase until 2007.**
- **Combat sorties peaked with surge; rose by nearly 7 times between May and peak in July.**
- **No clear seasonal pattern; driven by tactical needs of the time during 2004-2007.**
- **Sorties with munitions dropped also peaked during surge.**
 - **1.9% in 2004**
 - **2.4% in 2005**
 - **1.5% in 2006**
 - **6.3% in 2007**

OIF Monthly Close Air Support Sorties with Munitions Dropped: 2004-2007

(Does not Include 20 & 30 mm cannon and rockets)



Source: CENTAFCAOC, 5 December 2007.

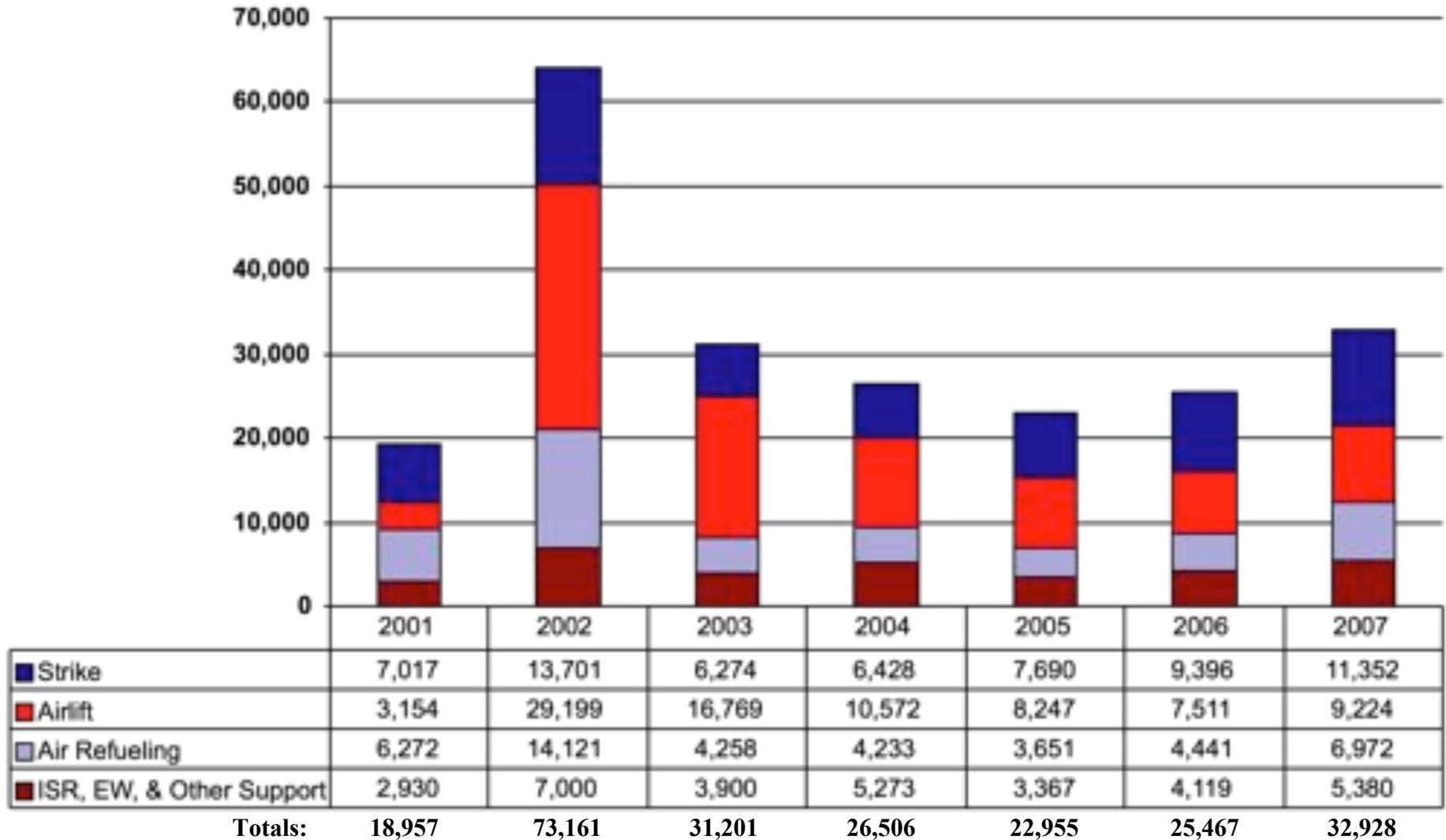
Copyright Anthony H. Cordesman, all rights reserved

Fixed Wing Air Activity in Afghanistan

The Role of Airpower in Afghanistan

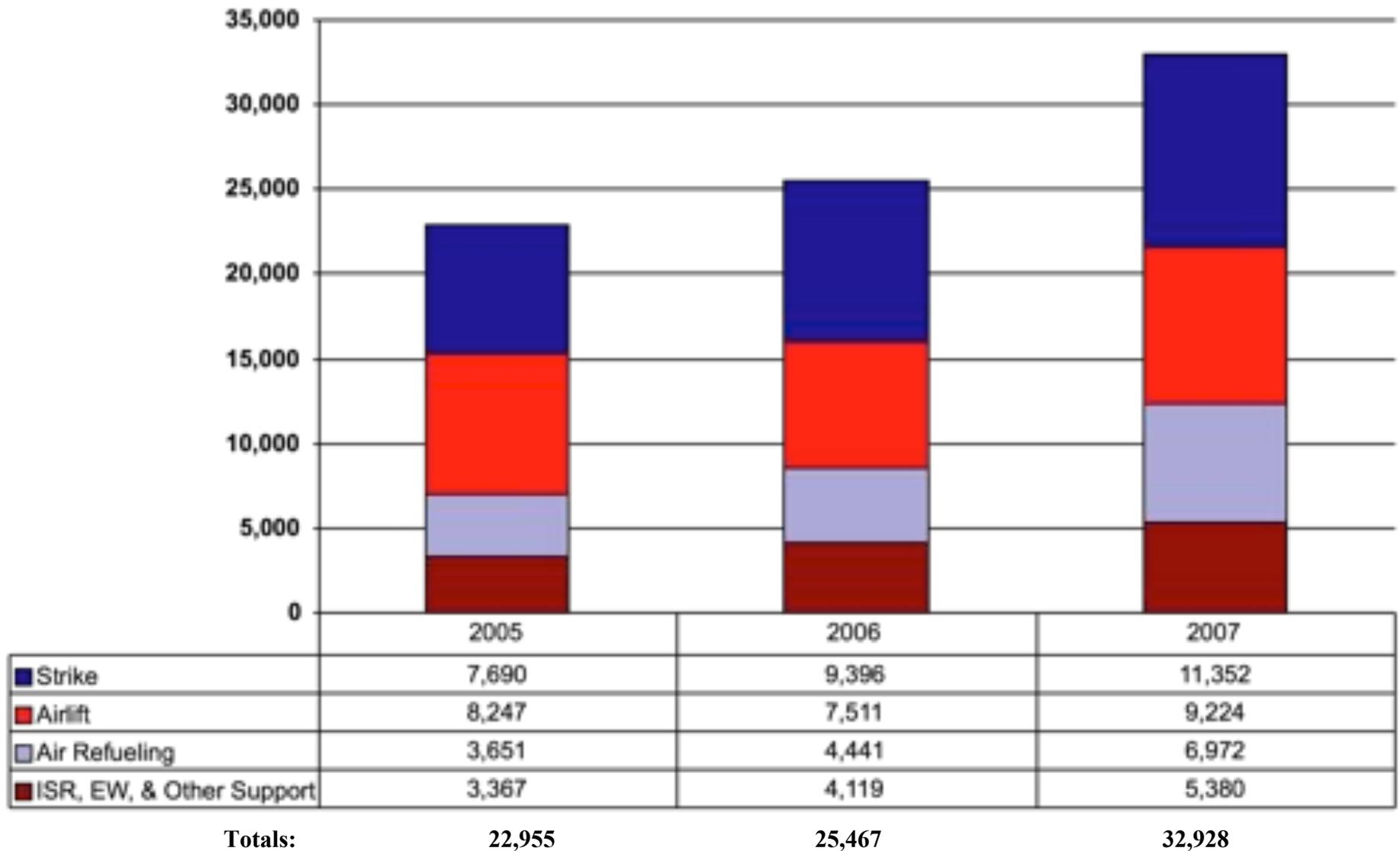
- Air has played an even more critical role than in Iraq.
- Airpower and the “AirLand” battle were critical to success in 2002.
- The number of sorties has risen sharply since the resurgence of the Taliban in 2005.
- The key increase during 2005-2007 has been in combat close air support and strike sorties, and in enablers like IS&, EW, and other combat support sorties.
- Once again, the lack of data on rotary win sorties sharply understates the impact of air power.
- Note: some important differences in CENTAF reporting for period 2004-2007. (Compare pages 22-23)

Operation Enduring Freedom Total Fixed Wing Sorties



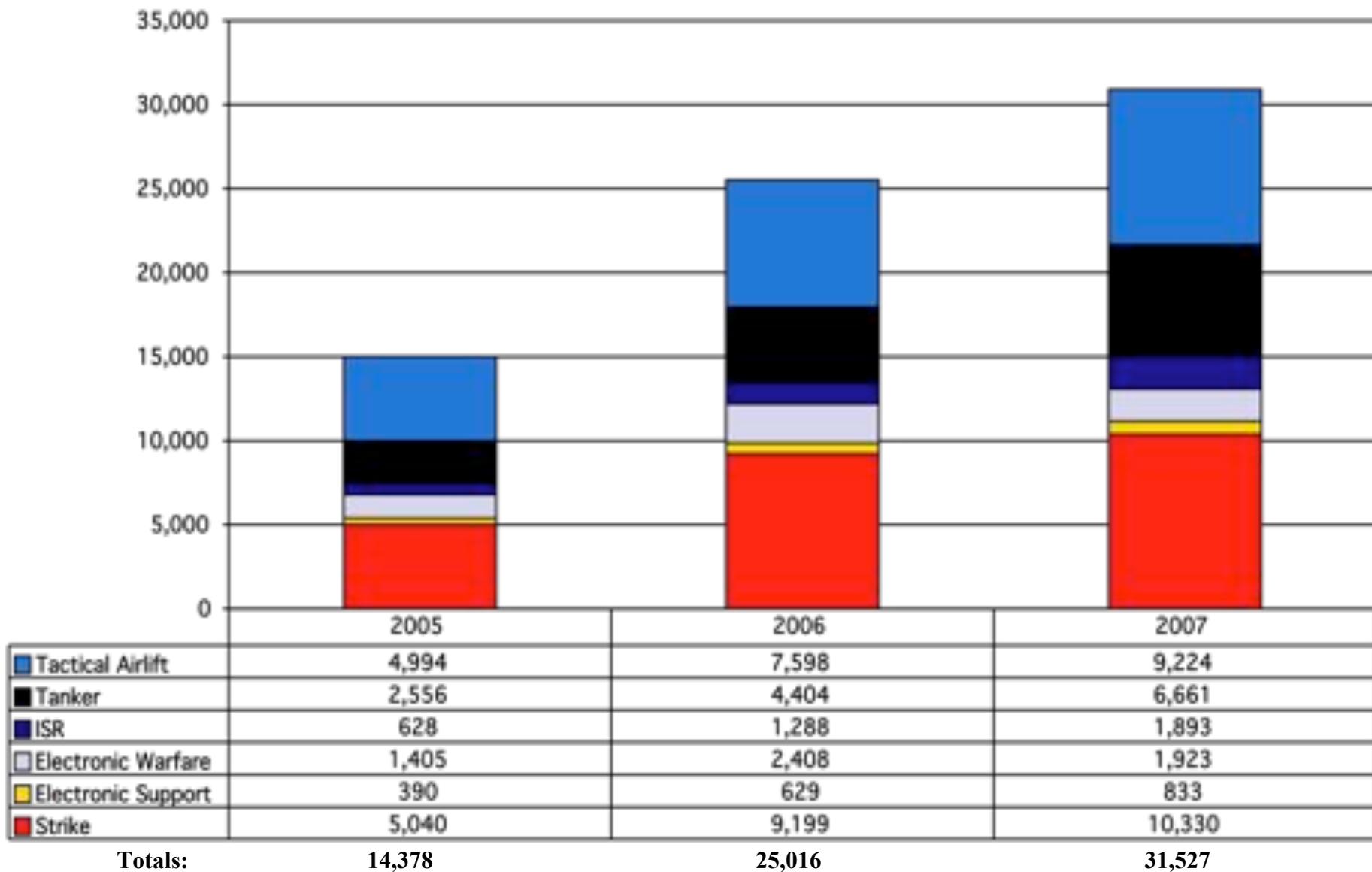
Source: CENTAF-FWD Histories

Operation Enduring Freedom Increase in Total Sorties with Taliban Resurgence



Source: CENTAF-FWD Histories

Operation Enduring Freedom Sortie Data



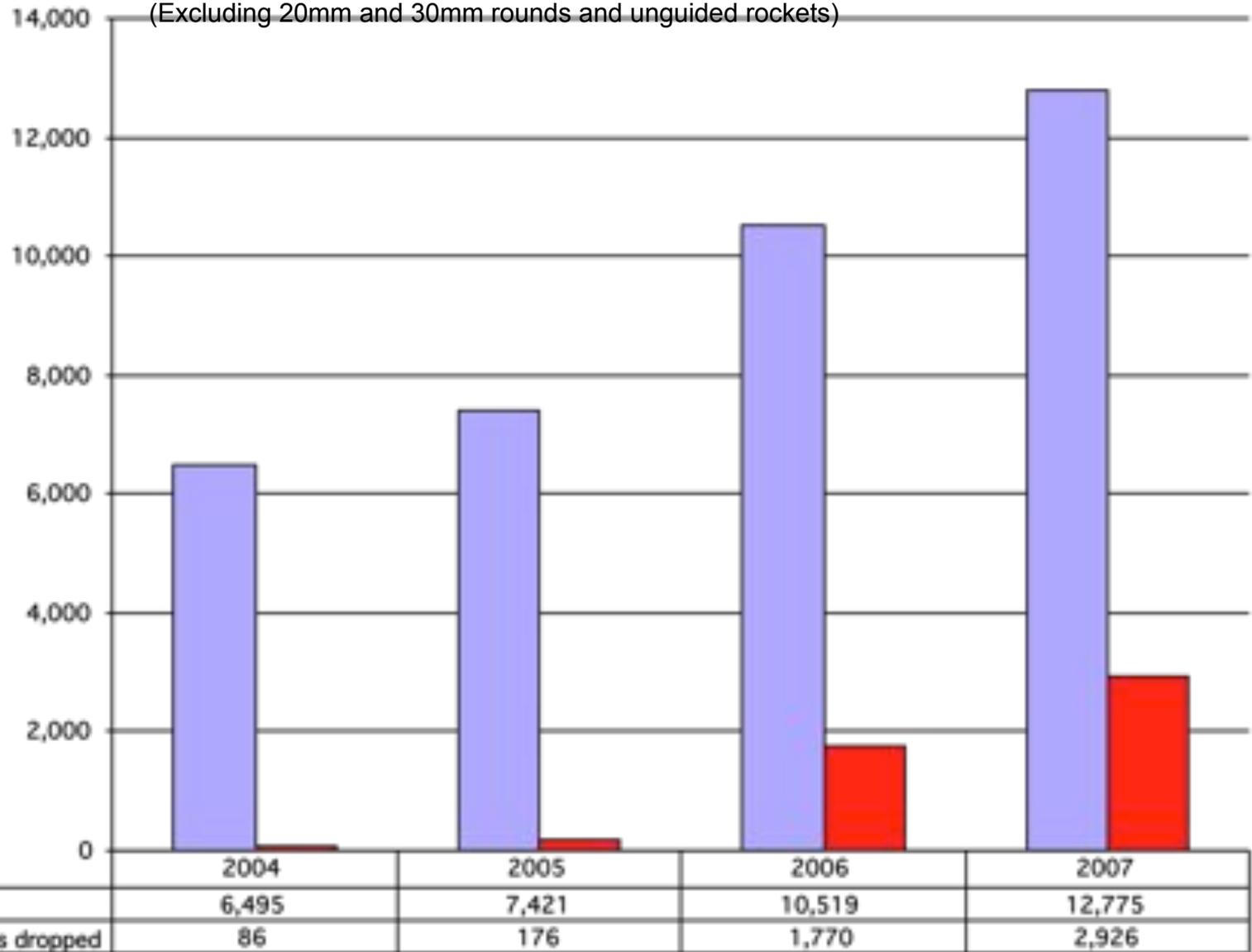
Source: CENTAF Operations Center

Combat Airpower in Afghanistan

- **Data show steady rise during 2004-2007 in both total combat sorties and sorties with munitions dropped.**
 - **Tactical histories show sorties with munitions dropped played critical role in ensuring NATO and US forces could win tactical clashes with Taliban during 2006-2007 in the face of limited ground forces.**
- **Data on Munitions expenditures show massive rise between 2005 and 2006 and doubling between 2006 and 2007**
 - **Key rise was in CENTAF munitions expenditures, but sharp rise in non-CENTAF expenditures as well.**
- **Rise in air support of troops in contact with enemy was critical.**
 - **Rose more than 5 times between 2005 and 2006.**
 - **Rose by 75% more in 2007 relative to 2006.**
- **Rise in “shows of force” sorties was much lower, but doubled between 2005 and 2006, and did increase to limited degree in 2007.**

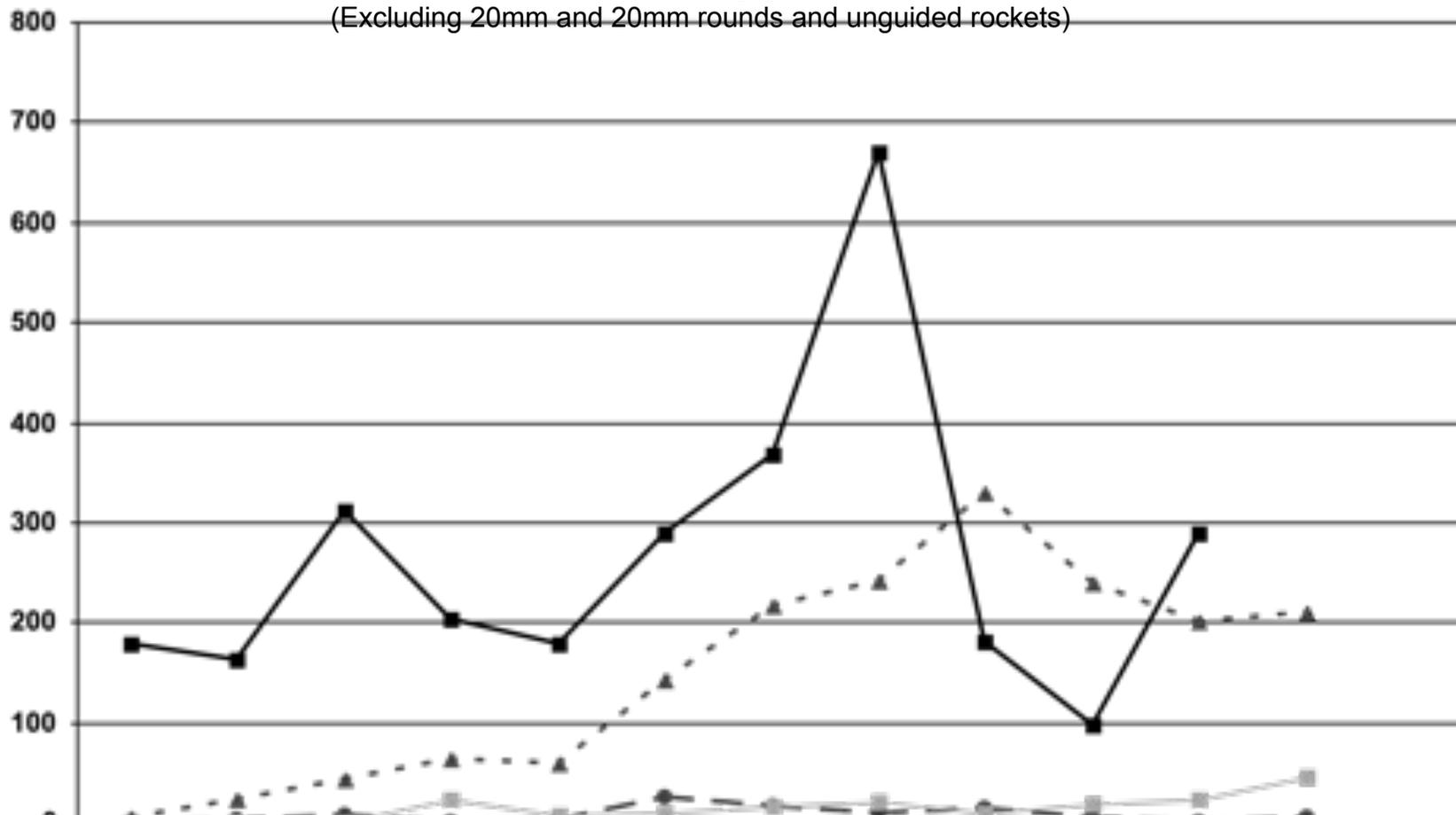
OEF: CFACC Total CAS Sorties and Sorties with Munitions Dropped

(Excluding 20mm and 30mm rounds and unguided rockets)



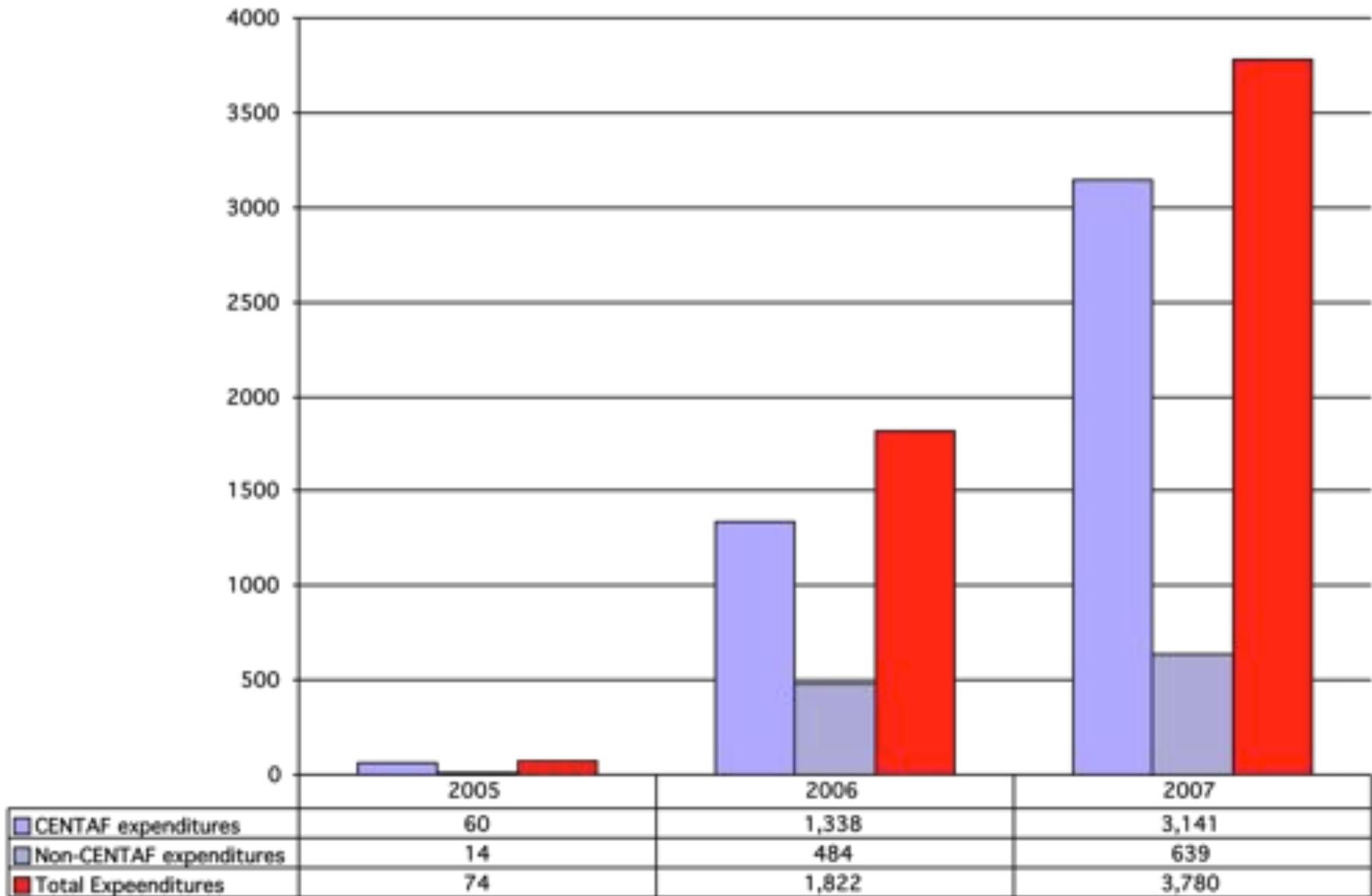
OEF Close Air Support Sorties With Munitions Dropped, 2004-2007

(Excluding 20mm and 20mm rounds and unguided rockets)



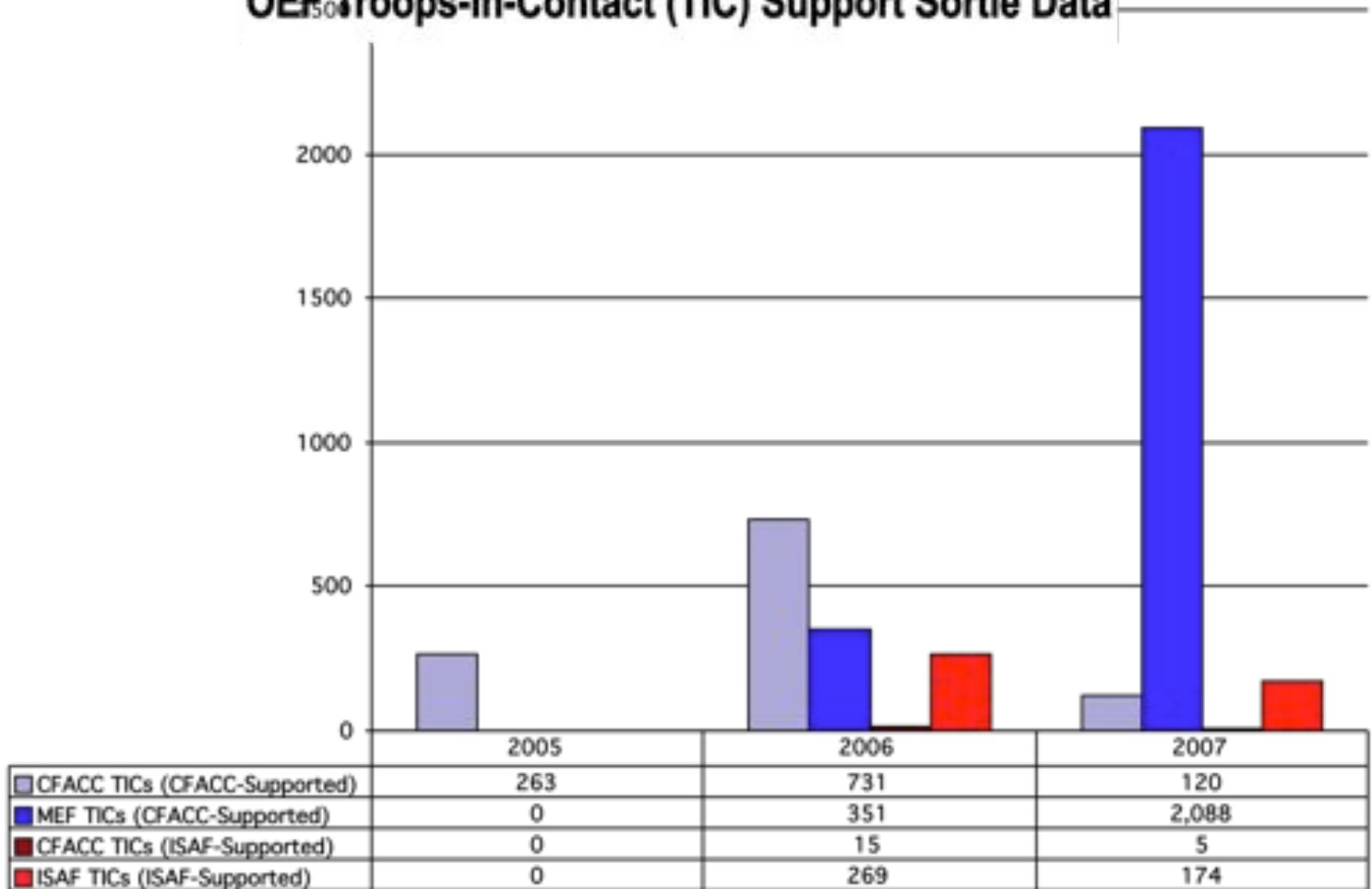
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Totals
—●— 2004	1	3	7	1	3	24	16	9	13	4	1	4	'88
—■— 2005	1	1	1	23	7	10	16	20	9	19	23	46	'176
-▲- 2006	5	23	42	63	59	141	216	242	329	240	201	209	'1,770
—■— 2007	178	163	310	202	179	288	368	670	181	98	289	-	'2,926

Operation Enduring Freedom Munitions Data



Source: CENTAF Operations Center

OEF Troops-In-Contact (TIC) Support Sortie Data



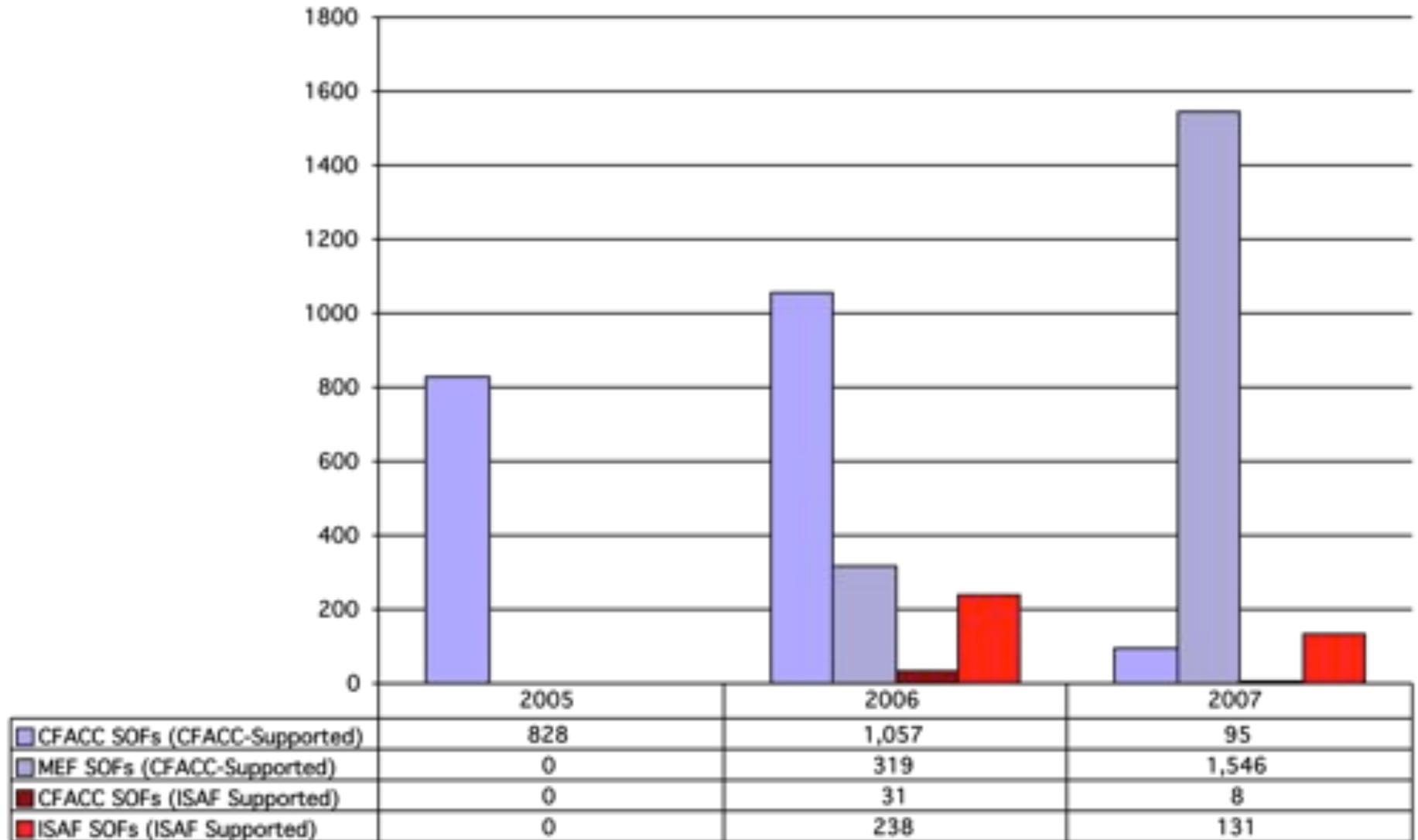
Total TICs:

263

1,366

2,387

OEF Shows of-Force (SOF) Support Data



Total SOFs:

828

1,645

1,780