

USAF PSYCHOLOGICAL OPERATIONS, 1990-2003

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Executive Summary.

Psychological operations attempt to alter the behavior of people in enemy-controlled territory. Airplanes have served as psychological instruments in recent conflicts by dropping leaflets and broadcasting radio and television messages. In conjunction with air strikes, these methods have persuaded enemy troops to surrender, abandon their positions, and stop fighting. In association with humanitarian air missions, they have also convinced civilians to turn against enemy leadership and welcome friendly forces.

Table I: Operations Involving Psychological Missions, 1990-2003

Operation	Location	Years
DESERT SHIELD	Kuwait, Iraq	1990-1991
DESERT STORM	Kuwait, Iraq	1991
SOUTHERN WATCH	Southern Iraq	1992-
RESTORE HOPE, CONTINUE HOPE	Somalia	1992-1994
NORTHERN WATCH	Northern Iraq	1997-
ALLIED FORCE	Serbia	1999
ENDURING FREEDOM	Afghanistan	2001-
IRAQI FREEDOM	Iraq	2003

Table II: Advantages and Disadvantages of Various Psychological Air Missions

Mission	Advantages	Disadvantages
Leaflet Drops	Retainable, re-readable, can be passed to others, printed word more authoritative; can be hidden; can double as surrender passes	Depend on literacy of population; require printing press; must be delivered physically over target; less timely; can be destroyed or altered; incriminate the bearer; may be offensive; may be diverted from targets
Airborne Broadcasts	More timely; more appealing with music; do not require aircraft to fly directly over hostile areas	Hearers must have access to radios or television sets and their power supplies; must be in proper language and dialect; listeners must tune to proper frequencies

LESSONS LEARNED.

Doctrine

- **Formulators of Air Force doctrine should continue to develop psychological operations theory.**

Planning

- **Psychological operations should be part of operation plans from the beginning.**
- **Psychological operations should be coordinated with other air operations.**
- **Media and messages should be tailored carefully for the target population.**

Tactics

- **Psychological operations should complement each other.**
- **Certain aircraft are more appropriate for psychological operations.**
- **Vulnerability of psychological operations aircraft limits their use.**
- **Eliminating enemy media enhances alternative information.**
- **Timing leaflet drops according to weather conditions enhances their effectiveness.**

DOCTRINE

Only recently did the Air Force and its sister services carve out a significant place for psychological operations in their doctrine. The fact that Air Force doctrine must include psychological operations is perhaps the most important of the lessons learned since 1990. As Air Force doctrine continues to evolve, it should devote increasing attention to psychological operations.

- **Formulators of Air Force doctrine should continue to develop psychological operations theory.**

During DESERT SHIELD/DESERT STORM in 1990 and 1991, the absence of published Air Force psychological operations doctrine became apparent.¹ Air Force psychological operations doctrine lagged behind similar joint and Army doctrine partly because the Army produced the psychological products that Air Force airplanes disseminated from the air. The Army's 4th Psychological Operations Group at Fort Bragg, North Carolina, typically prepared the leaflets to be distributed and the radio or television messages to be broadcast.² In July 1994, the Air Force published AFI 10-702 to provide guidance for psychological operations.³ The Air Force published a psychological operations document early in 1997 (AFDD 2-5.5) and a successor in August 1999 (AFDD 2-5.3) that expressed "how Air Force assets can be organized, trained, equipped, and operated to conduct and support PSYOP."⁴ The doctrine provided a basis for planning psychological missions for Operations ALLIED FORCE in 1999, ENDURING FREEDOM in 2001 and 2002, and IRAQI FREEDOM in 2003. It also furnished a foundation for the training of new officers in psychological missions. The Air Force should continue to develop its psychological operations doctrine, especially at the operational level.

PLANNING

Planners need to include psychological missions in their operations plans from the beginning, coordinate psychological with other air missions, and tailor both media and messages carefully for target populations.

- **Psychological operations should be part of operation plans from the beginning.**

When Operation DESERT SHIELD began in August 1990, Central Command leaders lacked expertise in psychological operations and sought advice from U.S. Special Operations Command leaders located at the same base to plan a campaign that would involve leaflet drops and aerial broadcasts. General H. Norman Schwarzkopf rejected the original psychological operations plan as overly “Ameri-centric” because it did not appeal enough to Arabs to whom it would be directed. In Riyadh, he asked Lt. Gen. John Yeosock, his Army component commander, to prepare a new psychological campaign. Yeosock did not complete the plan until November, at least three months after the start of DESERT SHIELD.⁵ Airborne radio broadcasts directed toward Iraqi soldiers in Kuwait did not begin until later that month. Delay of the DESERT SHIELD psychological campaign limited its effectiveness in preparing the battlefield for Operation DESERT STORM.⁶

Another obstacle delaying psychological operations campaigns in the 1990s was the need for State and Defense Department approval of psychological operations products to insure their consistency with the nation’s foreign policy. Pre-approval of a psychological campaign plan and its products would hasten their use in the theater. Delegating more responsibility to the theater commander to decide which psychological products to deliver would increase the timeliness and probably also the effectiveness of the messages.⁷

During the 1990s, theater commanders increasingly incorporated psychological resources in their campaign planning. Air Force Instruction 10-702 published in 1994 stated that “commanders must include a designated PSYOP planner at the beginning of

the campaign planning process to effectively accomplish this mission.”⁸ Operation ENDURING FREEDOM and IRAQI FREEDOM planners, for example, stressed psychological missions more than planners of operations DESERT SHIELD, DESERT STORM, and RESTORE HOPE.⁹ Since the terrorist attacks of September 11, 2001, a closer relationship between the Defense Department and the Central Intelligence Agency has encouraged this process.¹⁰ Psychological operations in preparation for Operation IRAQI FREEDOM, which began in March 2003, actually commenced at the end of 2002.¹¹ Planners of every operation should be aware of the potential of psychological resources and include them from the beginning.

- **Psychological operations should be coordinated with other air operations.**

Acts make words effective. During the period 1990-2002, air strikes verified the warnings of leaflets and broadcasts. Commanders who integrated psychological and attack missions enhanced the effectiveness of both. During Operation DESERT STORM, U.S. forces often warned Iraqi troops in advance that they would be targeted. Subsequent air strikes confirmed the warning.¹² Future threats could be believed. Many of the air-delivered messages of Operation ENDURING FREEDOM threatened Taliban and Al Qaeda troops with destruction if they failed to surrender or abandon their positions. Prompt air strikes on those positions made good the threats. Special Operations forces used the same kind of MC-130 aircraft for dispensing leaflets and for dropping huge BLU-82 “Daisy cutter” bombs for psychological effect.¹³ B-52s and F-16s sometimes bombed enemy forces after the delivery of warning leaflets or broadcasts. This meshing of B-52 or F-16 air raids, MC-130 leaflet and BLU-82 drops, and EC-130 aerial broadcasts required careful timing and coordination of flights.

During the first three months of Operation ENDURING FREEDOM, commanders also enhanced the effectiveness of both humanitarian and psychological missions by coordinating them. Leaflet drops and radio broadcasts informed people where to find airdropped food, how to open and consume it, and why it was coming.¹⁴ At the end of the fasting month of Ramadan, dates accompanying messages dropped from the air made the messages more appealing. Humanitarian food drops were not simply psychological tools, but they served a psychological purpose when coordinated with air-delivered messages.

Careful coordination of psychological with other air missions had other advantages. During Operation ENDURING FREEDOM in 2001-2002, EC-130s trailed a 300-foot antenna with at 500-pound weight at the end.¹⁵ Commanders had to plan flight paths carefully to avoid collisions. Coordinating EC-130 and KC-135 flights assured adequate aerial refueling for more effective broadcasting.¹⁶

Deconfliction of the flight paths of strike and psychological operations aircraft posed less of a problem in Operation IRAQI FREEDOM, partly because the preexisting no-fly zones of Operations NORTHERN WATCH and SOUTHERN WATCH allowed leaflet drops and radio broadcasts to take place over the Iraqi theater even before major combat missions began on March 19, 2003. By that date, coalition airplanes had already dropped some 12 million leaflets over Iraq. Some of these leaflets informed Iraqis how to tune in to coalition radio broadcasts that began before U.S. and British soldiers invaded.¹⁷

- **Media and messages should be tailored for the target population.**

The most effective leaflets reflected the linguistic and cultural nuances of their readers. In Somalia during Operation RESTORE HOPE, one leaflet read “slave nations” instead of “United Nations” in the Somali language, sending a counterproductive message.¹⁸ During Operation ENDURING FREEDOM, USAF C-17s dropped thousands of food packages over Afghanistan with printed messages stating, “This is a food gift from the people of the United States of America.” Unfortunately, they were printed in English, Spanish, and French, none of which the average Afghan could understand.¹⁹ The packages had been prepared without reference to where they would be delivered.

Color is an important consideration. During Operation DESERT STORM in 1991, Iraqi troops avoided leaflets printed in red because that color suggested danger.²⁰ Food packages and cluster munitions dropped during Operation ENDURING FREEDOM at first were the same yellow color.²¹ Civilians were tempted to believe that they were being lured to destruction. Changing the color of the food packages countered the negative psychological impact.

Leaflet designers had to consider high illiteracy rates in many foreign countries and use pictures as well as words. In Iraq and Kuwait in 1991, leaflets that carried images of coalition troops with beards were more appealing than those that showed the same troops as clean-shaven. Iraqis unfamiliar with western-style comic strips were confused by overhead bubbles attempting to show what a character was thinking or saying.²² In Afghanistan, certain Islamic fundamentalists resented images of persons as idolatrous.

People in enemy territory were more likely to pick up a leaflet when it appeared to be their own currency, partly because they could hide it more easily.²³ Such leaflets

also facilitated passing information from one person to another. Money-type leaflets were also generally smaller, demanding less paper than other leaflets, although they required more skillful production. In a sense the leaflets were somewhat like the money they imitated, because they could usually be exchanged for food, safe passage, or some other benefit.

Linguistic diversity has always challenged psychological operations warriors. In Haiti during Operation UPHOLD DEMOCRACY in 1994, U.S. leaflets targeted the common people with messages in their Creole “patois” rather than the more refined French of the military leadership.²⁴ During peacekeeping operations in Bosnia after its civil war, U.S. military forces printed leaflets in both Croatian and Serbian.²⁵ During Operation ENDURING FREEDOM, psychological operations leaflets printed in Pashto and Dari appealed to Afghanistan’s two largest ethnic groups, but could not be read by many Al Qaeda members in the country who could speak only Arabic.²⁶

Airborne broadcasts were usually prerecorded, and taped radio or television programs were sometimes out of date. Announcers broadcasting live from EC-130s had to be familiar with the language and dialect of the target audience. Finding such announcers was sometimes difficult, especially for areas on the other side of the world.²⁷

Psychological operations personnel must consider not only the content of broadcasts but also whether or not they can be received. In a 1999 attempt to erode loyalty to Serb dictator Slobodan Milosevic, NATO broadcast his indictment by a War Crimes Tribunal.²⁸ Operation ALLIED FORCE airstrikes had destroyed electrical systems in Serbia, making many Serb radio and television sets useless, and with them, many of the broadcasts. In Somalia, limited availability of radios and television sets

discouraged deployment of EC-130s at all. In Afghanistan, the Taliban had banned broadcasts of western music. To overcome the limited availability of working radios during Operation ENDURING FREEDOM in 2001 and 2002, operators dropped radios with their own electrical power sources, such as generator cranks or batteries.²⁹ This increased the percentage of the population who could be reached by EC-130 broadcasts. Commando Solo airplanes over Afghanistan did not broadcast television messages, partly because of the lack of electrical power in enemy-held areas and partly because not many Afghans had televisions to watch.³⁰ Heavy color broadcasting equipment and operators were not necessary. Removing them allowed the EC-130s to fly higher and longer. Television broadcasting was more appropriate in Iraq during Operation IRAQI FREEDOM in 2003. EC-130s began broadcasting television messages to the Iraqi people by the end of March, using the traditional Iraqi television frequencies.³¹

Tailoring psychological messages for the Iraqi people and armed forces before and during 2003's Operation IRAQI FREEDOM proved relatively easy. The United States had already been targeting the Iraqis psychologically for more than 13 years, since DESERT SHIELD in 1990. The cooperation of Iraqi exiles and other friendly Arabs insured that the 2002 and 2003 messages, both printed and broadcast, were consistent with the culture and language of the people for whom they were intended.³²

TACTICS

Remaining lessons deal with the tactical use of psychological operations resources or their denial to the enemy. Leaflets and broadcasts should complement each other. Certain aircraft are more appropriate for psychological missions, but their vulnerability

limits their use. Eliminating enemy media enhances alternative information. Timing leaflet drops according to weather conditions enhances their effectiveness.

- **Psychological operations should complement each other.**

During the period 1990-2003, leaflets and aerial radio broadcasts with consistent messages proved effective. Repeating the same information with varied media enhanced its credibility and dissemination. Populations in enemy territory could get a message in leaflet form if they missed the broadcast or in broadcast form if they missed the leaflet. For those who received both the leaflets and the broadcasts, the messages were more persuasive because they reinforced each other.

Leaflets and aerial broadcasts also successfully advertised each other during operations from DESERT STORM through IRAQI FREEDOM. Radio broadcasts at times urged troops to pick up leaflets to use as safe-conduct surrender passes. Conversely, leaflets often informed people about the frequencies of broadcasts so that they could tune their radios to the right station.

Air and ground psychological efforts also proved effective when they reinforced each other. In Operations DESERT STORM, ENDURING FREEDOM, and IRAQI FREEDOM, leaflets and broadcasts told prospective prisoners how to surrender, while ground loudspeaker teams told them where and when.³³ Surrender of more than 80,000 Iraqis in 1991, many carrying leaflets, confirmed the effectiveness of the system. Only some 7,300 Iraqis surrendered to coalition forces in 2003, partly because most leaflets and broadcasts told them to leave their weapons and go home instead of how and where to surrender.³⁴ Even so, thousands of underfed Iraqi troops, promised humane treatment

by aerial broadcasts, surrendered to U.S. and British forces hoping to trade their leaflets for food.³⁵

- **Certain aircraft are more appropriate for psychological operations.**

In the period 1990-2003, MC-130 airplanes achieved greater leaflet-dropping accuracy than F-16s and B-52s because they flew at lower altitudes and at slower speeds. During Operation ALLIED FORCE in 1999, manned aircraft were restricted to high altitudes to avoid enemy air defenses. This limited MC-130 leaflet-dropping missions. F-16s flying at altitudes as high as 20,000 feet dropped millions of leaflets using M129 leaflet bombs that exploded on the way to the ground, dispensing their messages over a wide area. Many of the leaflets landed far from their targets and in some cases in another country!³⁶ In Afghanistan in 2001 and 2002, the threat of shoulder-launched stinger surface-to-air missiles also restricted MC-130 flights. B-52s, F-16s, and USN F-18s and A-6s dropped leaflet bombs from high altitudes at high speeds.³⁷ Although each bomb could carry up to 80,000 leaflets, the leaflets did not drop as accurately as those dispensed from the MC-130s. Air supremacy over Iraq in 2003, prepared by the no-fly zones of Operations NORTHERN WATCH and SOUTHERN WATCH, allowed MC-130s to dispense millions of leaflets effectively.

- **Vulnerability of psychological operations aircraft limits their use.**

Because of their limited speeds and altitudes, MC-130s and EC-130s generally flew only over enemy areas where air superiority and suppression of enemy air defenses had already been achieved. This practice largely prevented psychological operations from serving as battlefield-preparation instruments.

Leaflet drops by MC-130s over Iraq and Kuwait did not begin until just before the air strikes of the subsequent Operation DESERT STORM in mid-January 1991.³⁸

Psychological operations aircraft such as EC-130s and MC-130s did not fly over Afghanistan prior to Operation ENDURING FREEDOM, which began on 7 October 2001.³⁹ In 2002 and the beginning of 2003, the United States dispensed millions of leaflets over southern and northern Iraq in anticipation of a new war. This was practical, however, only because of long-standing no-fly zones (Operations SOUTHERN WATCH and NORTHERN WATCH) that suppressed enemy air defenses.⁴⁰ During Operation IRAQI FREEDOM, coalition control of the air allowed the dropping of some 25 million leaflets, mostly by MC-130s.⁴¹ In a hostile environment in the future, unmanned aerial vehicles might drop leaflets from low altitudes and low speeds without risking aircrew lives.

EC-130 airplanes, used to broadcast radio or television messages from the air, were even more vulnerable than their MC-130 special operations counterparts because they were heavier and slower, and because they remained aloft over the same area for a longer period. The Pennsylvania Air National Guard's 193d Special Operations Squadron, serving the Air Force Special Operations Command, operates all of the EC-130 Commando Solo aircraft.⁴² Commanders were reluctant to risk the loss of such aircraft by flying them directly over hostile territory because of their expense and small number (6-8 in the period 1990-2003).⁴³ Commando Solo aircraft did not need to fly directly over their target audiences, but they did have to remain within range.⁴⁴ EC-130s broadcast psychological messages to Iraqi soldiers during Operation DESERT SHIELD, but they remained over Saudi Arabia instead of flying over Iraq because of the enemy's

air force and anti-aircraft systems. President Saddam Hussein specifically instructed his anti-aircraft artillery crews to target the Commando Solo airplanes.⁴⁵ EC-130 radio broadcasts were effective during Operation UPHOLD DEMOCRACY in Haiti in 1994 partly because the aircraft were able to fly with less restriction.⁴⁶ Commando Solo airplanes could broadcast radio messages into Serbia before Operation ALLIED FORCE in 1999 by flying beyond the boundaries of that country, but only because the country was so small. During Operation ENDURING FREEDOM, less than half of the target population could be reached by EC-130 radio signals because the aircraft did not fly over enemy territory deemed too dangerous for them.⁴⁷ When USAF Commando Solo airplanes began broadcasting radio messages into Iraq in December 2002, in preparation for Operation IRAQI FREEDOM, they avoided flying over Iraq, including the no-fly zones.⁴⁸ Air Force Special Operations Command (AFSOC) 11-202, which described how EC-130s should be employed, told pilots to “avoid all known threats.”⁴⁹ To reach the people north of Baghdad with radio broadcasts, the coalition used ground-based broadcast stations in Kurdish-held territory in northern Iraq.⁵⁰

Even before Operation IRAQI FREEDOM, the Defense Science Board recommended the development of longer-range dissemination systems.⁵¹ It also suggested replacing EC-130 Commando Solo aircraft with unmanned aerial vehicles and leased aircraft for the same aerial broadcast mission.⁵² The wisdom of this is debatable. No unmanned aerial vehicle yet designed contains the sophisticated systems aboard a Commando Solo airplane. Moreover, the EC-130 sometimes broadcasts live messages that require an onboard linguist. Also, selective use of the EC-130s prevented any from falling to enemy fire between 1990 and 2003.⁵³

- **Eliminating enemy media enhances alternative information.**

Air and cruise missile strikes in Operations DESERT STORM in 1991 and ALLIED FORCE in 1999 silenced enemy radio broadcasts by targeting stations, transmission towers, and power plants in Belgrade and Baghdad. Early in Operation ENDURING FREEDOM, a cruise missile destroyed the “Voice of Sharia,” the Taliban’s main radio station in Kabul.⁵⁴

Coalition forces in Operation IRAQI FREEDOM did not immediately destroy Iraqi broadcasting facilities, possibly because they wanted to learn about the fate of Saddam Hussein or to use the information infrastructure in case of a quick military coup. Instead they used EC-130 broadcasts to drown out Iraqi radio on the same frequencies, fooling some reporters into thinking that Iraqi radio had been targeted with precision-guided munitions.⁵⁵ It was not until March 29, 2003, that coalition cruise missiles struck the Ministry of Information in Baghdad, largely destroying its transmission facilities.⁵⁶ By that time, EC-130s were broadcasting their own television messages on the old Iraqi frequencies.⁵⁷ Targeting enemy broadcast facilities deprived the enemy of his propaganda voice, impeded his ability to communicate with his own forces, and enhanced alternate broadcasts.

During Operation IRAQI FREEDOM, Commando Solo airplanes could overpower Iraqi broadcasts, but only when they used the same frequencies. Iraqi radio changed frequencies to stay on the air. To jam Iraqi transmissions and disrupt enemy communication, the Air Force also used Compass Call airplanes, another version of the EC-130.⁵⁸ Depriving the enemy of his voice could be as effective as transmitting one’s own.

If the enemy could broadcast no contradictory information, coalition broadcasts carried greater weight. The same was true in reverse. In the spring of 1993, the United States did not conduct psychological operations in Somalia. This allowed warlord Mohammed Aideed's radio station in Mogadishu to incite violence against United Nations forces in the country.⁵⁹ In the summer of 1993, a U.S. AC-130 gunship silenced the station.

- **Timing leaflet drops according to weather conditions enhances their effectiveness.**

Commanders achieved more accurate leaflet drops during periods of low wind and precipitation. Strong wind blew leaflets away from intended target areas, especially when the dispensing aircraft were flying high enough to avoid the danger of ground fire. Operation ENDURING FREEDOM commanders did not dispense leaflets over Afghanistan until a week after the start of air strikes because of high winds.⁶⁰ During Operation IRAQI FREEDOM, coalition aircrews dropped 600,000 leaflets over Iraq on a day when winds exceeded 50 miles per hour and sand storms raged throughout the country. No doubt many of these leaflets landed far from where they were intended.⁶¹

Dry desert climates of Afghanistan and Iraq facilitated leaflet drops because the paper was not likely to stick together or decay.⁶² The leaflets dispersed as expected and remained in reasonably good condition on the ground. Rain runoff rarely washed the leaflets away. During Operation ALLIED FORCE in 1999, Serbia's wetter climate sometimes made leaflets cling together and discouraged people from picking them up.

Effectiveness of USAF psychological operations in recent conflicts

The effectiveness of psychological operations varied from conflict to conflict and was difficult to measure when records in enemy capitals were off limits, such as those in Baghdad in 1991 and Belgrade in 1999. Psychological messages undoubtedly affected the 100,000 Iraqi troops who surrendered or deserted in 1991.⁶³ Coalition aircraft dropped some 29 million leaflets over occupied Kuwait and southern Iraq and broadcast radio messages from the air 19 hours per day. The messages reached an estimated 73,000 Iraqis and influenced some 70 percent of the Iraqi prisoners to surrender.⁶⁴ Most of the more than 80,000 Iraqi **troops who surrendered carried leaflets** that could be used as safe-conduct surrender passes.⁶⁵ **Interviews with Iraqi prisoners confirmed the influence** of both the leaflets and radio broadcasts in their decision to give up. Rebellions against Saddam Hussein among the Kurds in northern Iraq and the Shiites in southern Iraq, while ultimately unsuccessful, also demonstrated to some extent the effectiveness of psychological products.

Psychological operations **largely failed in Somalia** during Operations RESTORE HOPE and CONTINUE HOPE in 1992-1994. The United States dropped almost three million leaflets, mostly from C-130s, but they failed to prevent violence against United Nations forces or thefts of delivered food by armed bands under warlord control.⁶⁶ Although AC-130s at times targeted hostile radio facilities, EC-130s did not deploy to Somalia to broadcast alternative radio messages from the air.⁶⁷ NATO dispensed more than 104 million leaflets during Operation ALLIED FORCE. Leaflet drops and radio broadcasts in Serbia in 1999 probably contributed to the government's decision to surrender to NATO demands, but their effectiveness on enemy troops was difficult to measure because NATO ground forces did not invade Serbia.

In Afghanistan during Operation ENDURING FREEDOM in 2001 and 2002, **Taliban troops readily changed sides**. Scores of Taliban prisoners interviewed at a U.S. detention facility at Guantanamo in Cuba testified that psychological operations radio messages and dropped leaflets influenced their decision to surrender.⁶⁸ The same was not generally true with Al Qaeda members, despite their exposure to air-delivered messages in Arabic. For them, **precision air strikes often proved to be more persuasive** than overt psychological products. Moreover, **psychological products failed to reach** most of the targeted population in denied areas.⁶⁹

Months before U.S. and British forces invaded Iraq on March 20, 2003, leaflets and aerial broadcasts prepared Iraq for invasion. The psychological campaign produced mixed results. It **failed to produce a general uprising** against Saddam Hussein either by his military forces or the general public. Perhaps they remembered the futility of the Shiite uprisings in southern Iraq in 1991, when coalition forces rapidly withdrew from Iraq. The biggest contribution of psychological operations in Operation IRAQI FREEDOM was to persuade very large numbers of Iraq's military forces to **abandon their weapons and go home**. Psychological messages **reduced popular resistance** to the invasion by promising freedom and a better future. Once convinced that large coalition forces had arrived in their vicinity, the population was generally ready to welcome the Americans and British as liberators.⁷⁰

While their effectiveness has fluctuated in recent conflicts, psychological operations clearly remain indispensable elements of modern warfare. The value of leaflet drops and radio broadcasts from the air is not so much an issue as the tactics and systems

by which they should be disseminated. The Air Force should continue to develop psychological operations in its theoretical doctrine and its operational practice.

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NOTES

¹ Task Force VII, "Psychological Operations and Air Power," Special Operations/Psyop Airpower in the Gulf, chapter 4.4 (TF7-29-373 vol. 4 at Air Force Historical Research Agency, IRIS number 874684) (S) 34. Information used is unclassified (U).

² Tom Vernon, "In the Air With Commando Solo," Radio World (<http://www.rwonline.com/reference-room/special-report/rwf-193rd.shtml>) 1-4. Wayne Specht, "EC-130 Flights Deliver U.S. Message Over Afghanistan Loud and Clear," Stars and Stripes, 22 October 2001 (<http://www.pstrips.com/o1/edl02201a.html>) 2-3.

³ Air Force Instruction (AFI) 10-702, 19 July 1994.

⁴ AFDD 2-5.3 Psychological Operations (August 1999) v.

⁵ Tom Clancy and Gen. Chuck Horner, Every Man a Tiger (New York: G. P. Putnam's Sons, 1999) 476.

⁶ Task Force VII, 34. Information used is unclassified (U). See also (<http://www.parallaxresearch.com/dataclips/pub/intelligence/psyops/EC-130>) 1. ⁶

⁷ Defense Science Board Task Force Brief, "Enduring Freedom Lessons Learned, 18 Dec 2001-10 Feb 2002," Disk 16 B of OEF-P CDs, under Future Plans folder (S). Information used is (U).

⁸ AFI 10-702, 19 July 1994.

⁹ James S. Corum, "Problems in Establishing Effective Command and Control in Multinational Peace Operations," USAF School of Advanced Airpower Studies, Maxwell Air Force Base, Alabama, 12.

¹⁰ Shawn Carkonen, book review of Bob Woodward's Bush at War (<http://www.amazon.com/exec/obidos/ASIN/o743204735/ref+nosim/iklmsubsite-sub-bk-asi...>)

¹¹ "Psychological Warfare Against Iraq," Radio Netherlands (<http://www.rnw.nl/realradio/features/html/iraq-psywar.html>) 1.

¹² Col. Frank L. Goldstein and Col. Benjamin F. Findley, Jr., editors, Psychological Operations: Principles and Case Studies (Maxwell Air Force Base, AL: Air University Press, 1996) 350. Task Force VII, 31. Information used is (U).

¹³ BLU-82 (<http://www.specialoperations.com/Focus/blu82.html>). BLU-82B (<http://www.fas.org/man/dod-101/sys/dumb/blu-82.htm>).

¹⁴ Herbert A. Friedman, "Psychological Operations in Afghanistan, Operation Enduring Freedom, 2001" (<http://psywar.psyborg.co.uk/afghanistan.shtml>) 1-3, 13-14.

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- ¹⁵ Vernon, 1-4. Bob Arnot, "Electronic War in the Afghan Skies," (<http://www.msnbc.com/news/722016.asp?0si&sp1=1&cp1=1>) 2.
- ¹⁶ "Do Not Adjust Your Set," *Air Force Magazine* vol. 81 no. 10 (October 1998) 66. 66.
- ¹⁷ "Leaflet Drop Reaches 12 Million," *Air Force Magazine* vol. 86 no. 4 (April 2003) 11.
- ¹⁸ "The U.S. and the U.N. in Somalia," Show transcript, 12 Dec 1993, Center for Defense Information (<http://www.cdi.org/adm/713/transcript.html>).
- ¹⁹ "Enduring Freedom: Humanitarian Aid to Afghanistan," (<http://www.psywarrior.com/enduringfree.html>).
- ²⁰ Goldstein and Findley, 354. Task Force VII, 43. Information used is unclassified (U).
- ²¹ "Cluster Bombs in Afghanistan," Mennonite Central Committee (<http://www.mennonitecc.ca/clusterbomb/afghanistan/>) 1.
- ²² Goldstein and Findley, 354. Task Force VII, 44-45. Information used is unclassified (U).
- ²³ "Psychological Operations (PSYOP)," on website of Special Operations.Com (<http://www.specialoperations.com/Army/PSYOP/>).
- ²⁴ Air Force Special Operations Command History, 1994, vol. I (S) 129. Information used is (U) unclassified.
- ²⁵ "Bosnia radio station leaflet," (<http://www.psywarrior.com/bosnialeaf2.html>).
- ²⁶ Friedman, "Psychological Operations in Afghanistan," 1-3, 13-14.
- ²⁷ Harold Kennedy, "Psyops Units Encouraged to Modernize Their Equipment," *National Defense*, February 2002 (http://www.iwar.org.uk/psyops/resources/national_defense/psyops_units.htm), 6.
- ²⁸ Department of Defense News Briefing, 27 May 1999 (http://www.defenselink.mil/news/May1999_t05271999_t0527asd.html).
- ²⁹ Friedman, "Psychological Operations in Afghanistan," 1-3, 13-14.
- ³⁰ Jennifer G. Williams, "Getting the Word Out: The 193rd Special Operations Wing," (www.reserve-nationalguard.com) 28, 30.
- ³¹ "Iraqi Media Dossier," *Radio Netherlands* (<http://www.rnw.nl/realradio/features/html/iraq-psywar.html>) 3. "New Psyops Frequencies Suggest the Emergence of the Northern Front," *Clandestine Radio* (http://www.clandestineradio.com/dossier/iraq2003/2003_0331.htm).
- ³² Herbert A. Friedman, "No-Fly Zone Warning Leaflets to Iraq," (<http://psywar.psyborg.co.uk/noflyzone.shtml>) 9. Gunnery Sgt. Charles Portman, "Commando Solo II: Weapons of Mass Persuasion," (<http://www.centcom.mil/CENTCOMNews/Stories/Operation%20Enduring%20Freedom/03...5/9/2003>) 2.
- ³³ Task Force VII, 30. Information used is unclassified (U).
- ³⁴ Herbert A. Friedman, "Operation Iraqi Freedom," (<http://psywar.psyborg.co.uk/opiraqifreedom.php>) 25.
- ³⁵ "Aerospace World Special: Gulf War II," *Air Force Magazine* vol. 86 no. 5 (May 2003) 38.

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- ³⁶Kennedy, 2-6.
- ³⁷“M129E1/E2 Leaflet Bomb” (<http://www.psywarrior.com/leafbomb.html>).
- ³⁸Goldstein and Findley, 350.
- ³⁹Specht, 4.
- ⁴⁰“Coalition Forces Drop Leaflets in Iraq,” Air Force Print News Today, 12/02/02 (<http://www.af.mil/news/Dec2002/12020223print.shtml>). Herbert A. Friedman, “No-Fly Zone Warning Leaflets to Iraq,” (<http://psywar.psyborg.co.uk/noflyzone.shtml>) 22.
- ⁴¹John Tirpak, “Desert Triumph,” *Air Force Magazine* vol. 86 no. 5 (May 2003) 12. “Leaflet Drop Reaches 12 Million,” *Air Force Magazine* vol. 86 no. 4 (April 2003) 11. “Aerospace World Special: Gulf War II,” *Air Force Magazine* vol. 86 no. 5 (May 2003) 38. This figure does not count the number of leaflets dropped before the invasion began on March 20, 2003.
- ⁴²Air Force Special Operations Command History, 1998, vol. I (K317.01 at Air Force Historical Research Agency, IRIS number 01135032) (S) 68. Information used is unclassified (U).
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- ⁶⁵ Clancy and Horner, 477, 510.
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- ⁶⁷ Telephone conversation and e-mail correspondence of author with Herb Mason, command historian for Air Force Special Operations Command, 10 Jan 2003.
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