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This document is classified SECRET since it reveals EWO combat capability information.

- 1. *Fast Attack Command and Control System, p. 14-18*
- 2. *Survival Communication P. 1-2; 14-18*
- 3. *K-50-Com-4363-HI, p. 14-18*
801ST AIR DIVISION

1 December 1962 - 31 January 1963

(Unclassified Title)

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DIRECTOR ASSISTANT TO THE DIRECTOR PATIN. Archives Branch Maxwell AFB, Alabama	RETURN TO:	KDU-801-HI Dec 1962 - Jan 1963
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 Office of Information
 Headquarters, 801st Combat Support Group

Approved by

C. F. Lassiter
 C. F. LASSITER
 Colonel, USAF
 Commander

801st AIR DIVISION
 EIGHTH AIR FORCE, STRATEGIC AIR COMMAND
 UNITED STATES AIR FORCE

DOWNGRADED AT 12 YEAR
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CHAPTER I

MISSION AND GENERAL SITUATION

Mission

The mission of the 801st Air Division, as directed by Headquarters Strategic Air Command (SAC) consist of training and maintaining a force capable of conducting electronic countermeasures (ECM) operations; develop and test ECM warfare tactics and equipment; maintain a capability to conduct long-range offensive bombardment and air-to-air refueling operations on a global scale, utilizing the latest technical knowledge, advanced weapons, and procedures; be prepared to perform those tasks assigned in current emergency plans and related operations orders; be prepared twenty-four hours around the clock to meet any emergency; train and administer assigned reserve personnel and units; and supervise the participation of assigned units in disaster relief and other domestic emergencies when required.¹ (U)

However, with the addition of the newly formed 4363d Airborne Communications Relay Squadron attached to the

1. 8AF Regulation 23-3, Aug 61. BIXO Historical Office.

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376th Bombardment Wing, the division will take on the added task of participating in survival communications activity. This squadron will, when completely operational, have nine specially configured E-47 aircraft equipped with special communication transmitters and receivers. These aircraft will be relay units for the Post Attack Command Post.² (S)

General Situation

The 801st Air Division Commander for December and January 1963 was Colonel O. F. Lassiter, who assumed command 19 September 1960. The division was still composed of two wings and a group. Colonel Robert W. Relfe was the 801st Combat Support Group Commander, while the 376th and 301st Bombardment Wings were commanded by Colonel Alan F. Adams and Colonel Raymond F. Rudell, respectively.³ (U)

The era of piston-aviation at Lockbourne will end in March 1963 when the last of the base's propeller-driven KC-97 air refuelers is flown to Guam for new duty in the Pacific. The departure of these tankers will make way for the arrival of the much faster jet KC-135 stratotanker due to arrive in April. A few gas-engine C-47 transports will remain on duty

2. History of 376BW for December 1962, pp. 1

3. Roster of Officers, 801st Air Div, 21 Jan 63. Exhibit 1.

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at the base, but the end of prop-driven tactical flying will end. As the 91st Air Refueling Squadron, assigned to the 376th Bombardment Wing, has already lost most of its tankers, the 321st Air Refueling Squadron, assigned to the 301st Bombardment Wing, will be the last to convert. (U)

to be flown during 1963 in which ECM tactics will be employed for better penetration of certain radar sectors. Eleven of the transmitters under test include the ALT-13 and QRC-139. These were carried on each test mission with various frequency and sweep rate settings.⁴ (U)

Aircraft from the two wings participated in the Fifteenth Air Force-directed Big Blast mission flown 24 January 1963 in which the ECM capability of SAC and North American Air Defense (NORAD) radar sectors were tested. The primary objective of these missions is to provide combat crews maximum training against NORAD facilities as their ground radar installations employ all available ECM, and provide NORAD a strike force environment which will train their personnel in ECM techniques. A total of twelve aircraft participated. These aircraft were refueled by KC-135s from Fifteenth Air Force units. The division's routes were selected from planned routes for each NORAD region exercise. (U)

The mission provided good ECM training for all sectors. However, the intensity of the ECM experienced was not as great as that reported for previous Big Blast missions. This is assumed to be primarily due to the effects of sectors having ability to signal aircraft to discontinue jamming operations by using code phrase "Stop Buzzer" reporting no significant tracking or weapons control difficulty due to ECM; only limited ECM actions were required in most instances.⁵ (U)

4. History of 376BW for Jan 63, pp 9. 376BW Historical Office.

5. History of 301BW for Dec-Jan, pp 15. 301BW Historical Office.

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The participating SAC crews were highly commended for their professional ECM tactics and precise jamming. A 29th NORAD Mission Report noted that through the excellent control of ECM emitters, SAC crews did not jam RAPCON frequencies. Although RAPCON and height finders are within the same narrow band of frequencies, only minor spill-over jamming was experienced.⁴ (S)

In conclusion, the 29th NORAD Region reported a wealth of experience gained from BIG BLAST ECHO. (U)

The 801st Air Division reported no problem areas, delays, cancellations or aborts.⁵ (U)

During February, the division flew five sorties in support of project TOGGLE SWITCH, missions flown in support of SAC test directives and which are planned by the Tactics Development Unit, Headquarters Eighth Air Force. (S)

This support consists of airborne tests against electronic aircraft detection equipment and systems presently under development. February's division commitment included three sorties from the 301st and two from the 376th Bombardment Wing.⁶ (S)

4. Ibid.

5. Msg, 801st Air Div to 8AF, 376DCOT-6, 102, "2AF BIG BLAST Report for 28 Feb 63," 6 Mar 63. Exhibit 8.

6. History of 301BW for Feb 63, pp. 13-18, 301BW Historical Office, et al, History of 376BW for Feb 63, P. 16, 376BW Historical Office.

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DICKENS 5-4888
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HEADQUARTERS
29th NORTH AMERICAN AIR DEFENSE REGION
RICHARDS-GEBAUR AIR FORCE BASE, MISSOURI

	INFO	ACTION
DCOT	3	
DCOT-1	2	
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DCOT-10		
DATE	TIME	COPIES

REPLY TO
ATTN OF: 29NOCV

SUBJECT: (U) BIG BLAST Mission Report

TO: Commander-in-Chief
North American Air Defense Command
ATTN: NOCP
Ent Air Force Base, Colorado

SAC
ATTN: DCOF
Offutt AFB Nebr

Commander
32 NORAD Region
ATTN: NOCP-O
Oklahoma AF Station
Oklahoma City Okla

Second Air Force
Barksdale AFB, La.

Commander
4 Region USARADCOM
Richards-Gebaur AFB, Mo.

801 Air Division
ATTN: DCOF
Lockborne AFB, Ohio

7 Bomb Wing
Carswell AFB, Texas

11 Strat Wing
Altus AFB Okla

17 Bomb Wing
Wright-Patterson AFB, Ohio

70 Bomb Wing
Clinton-Sherman AFB, Okla

97 Bomb Wing
Blythville AFB, Ark

376 Bomb Wing
Lockborne AFB, Ohio

379 Bomb Wing
Wurtsmith AFB, Mich

410 Bomb Wing
K I Sawyer AFB, Mich

449 Bomb Wing
Kircheloe AFB, Mich

454 Bomb Wing
Columbus AFB, Miss

494 Bomb Wing
Sheppard AFB, Texas

4130 Strat Wing
Bergstrom AFB, Texas

4238 Strat Wing
Barksdale AFB, La

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9 MAR 1963		1

I. (U) The following BIG BLAST Mission Report is submitted in accordance with SAC/NORAD Regulation 51-25, 4 September 1962.

Part I. (U) 29 NORAD Region, 13 March 1963.

Part II. (U) BIG BLAST ECHO 28 Feb 1963.

Part III. (U) There were twenty-nine SAC aircraft scheduled. Twenty-nine aircraft completed the Mission. SAC provided the only target aircraft for this Mission.

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Part IV. (S) Intercepts Attempted - 217 (Includes 35 ADA)

Intercepts Completed - 191 (includes 34 ADA)

Part V. (S) Total number of missed intercepts attributed to ECM direct against:

- a. Search and Height Radars: 0 (See Narrative)
- b. Airborne Fire Control System Radars: 17
- c. Communication Frequencies: 0

Part VI. (S) Total number of missed intercepts other than those due to ECM: 8

Part VII. (S) Total number of Simulated BOMARC launchings and MA's: N/A

Part VIII. (S) Total number of Simulated NIKE launchings and MA's: 35 launchings: 34 MA; 1 MI

Part IX. (S) NARRATIVE SUMMARY.

a. The adherence of SAC aircraft to flight plans and cell structure made this exercise the most effective yet experienced by the 29 NORAD Region. The ECM environment provided by SAC aircraft resulted in some of the best ECM/ECCM Training ever received. Valuable training was received by the Aircrews, Sector RIGMO's, and ECCM personnel at Radar Squadrons.

b. Effects of ECM/ECCM.

(1) The effectiveness of ECM on Search and Height Measuring equipment ranged from light to medium on DELTA Band and medium to heavy on ECHO Band. Jamming on DELTA and ECHO Band Radars began at 0130Z with ECHO Band predominating. As expected, FPS-3 Radars were rendered virtually useless for the majority of the Exercise. Height Finders received heavy jamming, but they were able to provide Height Information by bisecting strobes at ranges provided by Search Radars. Prior to the Mission, Division Radars were "PEAKED" and "FIXED" to reduce, as much as possible, the shock effect. ECCM "Fixes" Such as DBB, STC, IAGC, FTC, MTI, AVNL, and DICKIE were used throughout the Mission.

(2) Jamming intensity of BAR 1 and 2 was sufficient to preclude intercept action as tracking merit was never good for a period long enough to complete an intercept. (SAC/NORAD 51-6 Restriction). It should be noted, however, that good tracking was maintained on other Fakers in the System and numerous successful intercepts were accomplished. Passive detection measures were tested in one Sector and provided the only target data on BAR 1 and 2. BAR 6 also provided strong jamming against ground environment and was not intercepted. Other significant jamming aircraft were BAR 9, 10, 100, 145, 150, 151, and 152.

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(3) Airborne Intercept Radars experienced heavy jamming from BAR 6 and 145, resulting in 3 MI's. The ECM Tactics employed by BAR 13, 14, and 122 were reported to be extremely effective against the MG-10 Fire Control System of the F-102.

(4) Communications jamming was not reported during the Exercise.

c. Limitations and Restrictions.

(1) Limitations, imposed by SAC/NORAD Regulation 51-6, that occurred are as follows:

- Radar data.
- a. BAR 1 and 2 - not intercepted - insufficient
 - b. BAR 11 and 12 - no Radar Contact, one Sector
 - c. BAR 7 - no Radio Contact, one Sector
 - d. BAR 8 - no Radar Contact, one Sector

(2) No Stop Buzzer/Stream requests from any agency were reported throughout the Mission. This was the first time that total cooperation between FAA and Military had been achieved. The cooperation can be partially attributed to SAC EW Officer professionalism. The fact that SAC Aircrews did not jam RAPCON contributed greatly to the success of the Mission. Although RAPCON and Height Finders are within the same narrow band of frequencies, only minor spill-over jamming was experienced. It should be noted that this excellent control of ECM Emitters was not just the work of one aircrew, but the entire force.

(3) Weather was generally good and posed no problem during the Mission.

Part X. (S) RECOMMENDATIONS. These Missions provide the 29 NORAD Region with ECM/ECM Training that cannot be duplicated in any other manner. EB-47 aircraft are especially beneficial to our FD and DELTA Band Radars. Recommend consideration be given to scheduling additional BIG BLAST Missions and initiating LITTLE FEVER Missions within 29 NORAD Region.

Part XI. (C) CONCLUSION. The intensity of ECM was sufficient to offer a worthwhile challenge. The 29 NORAD Region gained a wealth of experience from BIG BLAST ECHO and is looking forward to the next BIG BLAST Mission.

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2. (U) The SECRET classification required on this document is for the protection of information that reveals the ECM/ECCM capability of the 29 NORAD Region, and is categorized as a Group 3 document in accordance with Paragraph 6a (4), AFR 205-2, and Paragraph 7b, SAC/NORAD Regulation 51-25.

FOR THE COMMANDER



F. K. BUCHER
CAPT, USAF
Asst Dir of Adm

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