

**Air Quality Support Documentation for the
Air Force Special Operations Command
AC-130J Formal Training Unit Relocation at
Kirtland Air Force Base, New Mexico**



U.S. Air Force photos by Tommie Horton

AIR CONFORMITY APPLICABILITY MODEL REPORT RECORD OF AIR ANALYSIS (ROAA)

1. General Information: The Air Force's Air Conformity Applicability Model (ACAM) was used to perform an analysis to assess the potential air quality impact/s associated with the action in accordance with the Air Force Manual 32-7002, Environmental Compliance and Pollution Prevention; the Environmental Impact Analysis Process (EIAP, 32 CFR 989); and the General Conformity Rule (GCR, 40 CFR 93 Subpart B). This report provides a summary of the ACAM analysis.

a. Action Location:

Base: KIRTLAND AFB
State: New Mexico
County(s): Bernalillo
Regulatory Area(s): NOT IN A REGULATORY AREA

b. Action Title: AC-130J Formal Training Unit (FTU) Relocation to Kirtland Air Force Base

c. Project Number/s (if applicable):

d. Projected Action Start Date: 1 / 2023

e. Action Description:

The USAF proposes to relocate the Air Force Special Operations Command (AFSOC) AC-130J FTU from Hurlburt Field, Florida to Kirtland AFB, New Mexico and organizationally realign the unit under the 58th Special Operations Wing (58 SOW) (Air Education and Training Command [AETC]), which is a tenant organization currently located at Kirtland AFB. This relocation would occur by fiscal year (FY) 2025 second quarter and would include the repositioning of AC-130J aircraft, personnel, operations squadron, and maintenance squadrons, and related construction activities. The proposed force structure would include a total of seven AC-130J Training Aircraft Inventory (TAI) which includes six Primary Training Aircraft Inventory (PTAI) and one Backup Aircraft Inventory (BAI). AC-130J flight operations in and around Kirtland AFB would be very similar to those performed by the MC-130J and HC-130J aircraft currently based there. New permanent personnel would include approximately 390 FTU personnel stationed year-round at Kirtland AFB.

f. Point of Contact:

Name: Caitlin Jafolla
Title: Air Quality SME
Organization: Cardno
Email:
Phone Number:

2. Air Impact Analysis: Based on the attainment status at the action location, the requirements of the General Conformity Rule are:

applicable
 not applicable

Total net direct and indirect emissions associated with the action were estimated through ACAM on a calendar-year basis for the start of the action through achieving "steady state" (i.e., net gain/loss upon action fully implemented) emissions. The ACAM analysis used the latest and most accurate emission estimation techniques available; all algorithms, emission factors, and methodologies used are described in detail in the USAF Air Emissions Guide for Air Force Stationary Sources, the USAF Air Emissions Guide for Air Force Mobile Sources, and the USAF Air Emissions Guide for Air Force Transitory Sources.

"Insignificance Indicators" were used in the analysis to provide an indication of the significance of potential impacts to air quality based on current ambient air quality relative to the National Ambient Air Quality Standards

AIR CONFORMITY APPLICABILITY MODEL REPORT RECORD OF AIR ANALYSIS (ROAA)

(NAAQSs). These insignificance indicators are the 250 ton/yr Prevention of Significant Deterioration (PSD) major source threshold for actions occurring in areas that are “Clearly Attainment” (i.e., not within 5% of any NAAQS) and the GCR de minimis values (25 ton/yr for lead and 100 ton/yr for all other criteria pollutants) for actions occurring in areas that are “Near Nonattainment” (i.e., within 5% of any NAAQS). These indicators do not define a significant impact; however, they do provide a threshold to identify actions that are insignificant. Any action with net emissions below the insignificance indicators for all criteria pollutant is considered so insignificant that the action will not cause or contribute to an exceedance on one or more NAAQSs. For further detail on insignificance indicators see chapter 4 of the Air Force Air Quality Environmental Impact Analysis Process (EIAP) Guide, Volume II - Advanced Assessments.

The action’s net emissions for every year through achieving steady state were compared against the Insignificance Indicator and are summarized below.

Analysis Summary:

2023

Pollutant	Action Emissions (ton/yr)	INSIGNIFICANCE INDICATOR	
		Indicator (ton/yr)	Exceedance (Yes or No)
NOT IN A REGULATORY AREA			
VOC	0.948	250	No
NOx	2.990	250	No
CO	3.442	250	No
SOx	0.008	250	No
PM 10	7.174	250	No
PM 2.5	0.124	250	No
Pb	0.000	25	No
NH3	0.004	250	No
CO2e	730.0		

2024

Pollutant	Action Emissions (ton/yr)	INSIGNIFICANCE INDICATOR	
		Indicator (ton/yr)	Exceedance (Yes or No)
NOT IN A REGULATORY AREA			
VOC	0.693	250	No
NOx	1.552	250	No
CO	1.939	250	No
SOx	0.004	250	No
PM 10	1.149	250	No
PM 2.5	0.057	250	No
Pb	0.000	25	No
NH3	0.002	250	No
CO2e	433.1		

AIR CONFORMITY APPLICABILITY MODEL REPORT RECORD OF AIR ANALYSIS (ROAA)

2025

Pollutant	Action Emissions (ton/yr)	INSIGNIFICANCE INDICATOR	
		Indicator (ton/yr)	Exceedance (Yes or No)
NOT IN A REGULATORY AREA			
VOC	2.658	250	No
NOx	33.828	250	No
CO	16.105	250	No
SOx	1.873	250	No
PM 10	4.365	250	No
PM 2.5	2.159	250	No
Pb	0.000	25	No
NH3	0.032	250	No
CO2e ¹	1025.2		

Note: ¹The flight operations for the AC-130J are anticipated to be similar to those performed at Hurlburt Field in Florida. For this reason, no net change in GHG emissions would occur, as these emissions are global in impact, and would simply transition from the Florida environs to New Mexico.

2026

Pollutant	Action Emissions (ton/yr)	INSIGNIFICANCE INDICATOR	
		Indicator (ton/yr)	Exceedance (Yes or No)
NOT IN A REGULATORY AREA			
VOC	1.518	250	No
NOx	31.761	250	No
CO	13.337	250	No
SOx	1.867	250	No
PM 10	3.906	250	No
PM 2.5	2.077	250	No
Pb	0.000	25	No
NH3	0.029	250	No
CO2e ¹	447.7		

Note: ¹The flight operations for the AC-130J are anticipated to be similar to those performed at Hurlburt Field in Florida. For this reason, no net change in GHG emissions would occur, as these emissions are global in impact, and would simply transition from the Florida environs to New Mexico.

2027

Pollutant	Action Emissions (ton/yr)	INSIGNIFICANCE INDICATOR	
		Indicator (ton/yr)	Exceedance (Yes or No)
NOT IN A REGULATORY AREA			
VOC	1.518	250	No
NOx	31.761	250	No
CO	13.337	250	No
SOx	1.867	250	No
PM 10	3.906	250	No
PM 2.5	2.077	250	No
Pb	0.000	25	No
NH3	0.029	250	No
CO2e ¹	447.7		

Note: ¹The flight operations for the AC-130J are anticipated to be similar to those performed at Hurlburt Field in Florida. For this reason, no net change in GHG emissions would occur, as these emissions are global in impact, and would simply transition from the Florida environs to New Mexico.

AIR CONFORMITY APPLICABILITY MODEL REPORT RECORD OF AIR ANALYSIS (ROAA)

2028

Pollutant	Action Emissions (ton/yr)	INSIGNIFICANCE INDICATOR	
		Indicator (ton/yr)	Exceedance (Yes or No)
NOT IN A REGULATORY AREA			
VOC	2.058	250	No
NOx	33.457	250	No
CO	15.643	250	No
SOx	1.872	250	No
PM 10	5.553	250	No
PM 2.5	2.141	250	No
Pb	0.000	25	No
NH3	0.031	250	No
CO2e ¹	447.7		

Note: ¹The flight operations for the AC-130J are anticipated to be similar to those performed at Hurlburt Field in Florida. For this reason, no net change in GHG emissions would occur, as these emissions are global in impact, and would simply transition from the Florida environs to New Mexico.

2029 - (Steady State)

Pollutant	Action Emissions (ton/yr)	INSIGNIFICANCE INDICATOR	
		Indicator (ton/yr)	Exceedance (Yes or No)
NOT IN A REGULATORY AREA			
VOC	1.518	250	No
NOx	31.761	250	No
CO	13.337	250	No
SOx	1.867	250	No
PM 10	3.906	250	No
PM 2.5	2.077	250	No
Pb	0.000	25	No
NH3	0.029	250	No
CO2e ¹	447.7		

Note: ¹The flight operations for the AC-130J are anticipated to be similar to those performed at Hurlburt Field in Florida. For this reason, no net change in GHG emissions would occur, as these emissions are global in impact, and would simply transition from the Florida environs to New Mexico.

None of estimated annual net emissions associated with this action are above the insignificance indicators, indicating no significant impact to air quality. Therefore, the action will not cause or contribute to an exceedance on one or more NAAQSs. No further air assessment is needed.



Caitlin Jafolla, Air Quality SME

3 August 2022
DATE