Waikiki Sunrise

Anatomy of the Painting

Keith Ferris

In December of 2005 I, along with several other artists participating in the Air Force Art Program, was the guest of the 15th Airlift Wing at Hickam Air Force Base, Honolulu, Hawaii. This unit was preparing to receive and operate the first Boeing C-17 Globemaster IIIs to be based outside the continental United States. These eight C-17s, flown by the 15th Airlift Wing and its Associate 154th Wing of the Hawaii Air National Guard, would give the Pacific Air Force its own airlift capability to support its mission of providing ready air and space power to United States interests throughout the Asia-Pacific region.

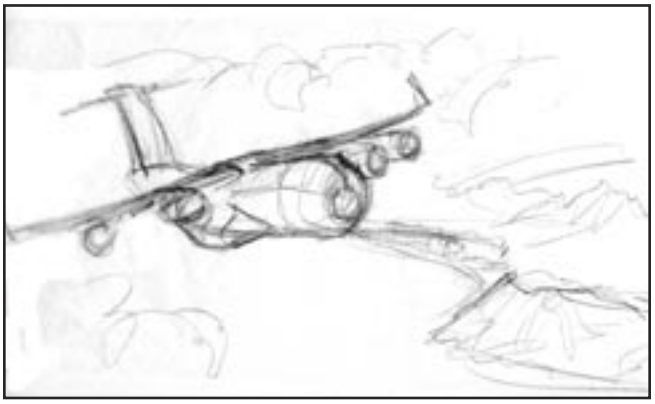
My assignment was to commemorate this new capability with a painting for presentation to the United States Air Force Art Collection. Both Pratt & Whitney, who manufactures the C-17's four F117-PW-100 engines, and Boeing, who builds the aircraft, stepped up to sponsor the creation and presentation of the painting.

The first step, as always, was to decide how best to tie all of the important elements of this story together in a painting. The decision as to what to paint in the first place is always the most critical of the multitude of decisions that will determine the success or failure of a painting.

The elements involved here were: *the first Hawaii based C-17; the beginning of a new capability; operation from the base located adjacent to Honolulu, Waikiki Beach and its world famous landmark, Diamond Head.*

It made sense to show these elements at sunrise, indicating *the dawn of this new airlift capability*.

The above thoughts led to the simple sketch in which I visualized the first C-17 as it climbs past Waikiki Beach and Diamond Head in the early morning sun. This was all that was needed to begin the process since it established in my mind's eye much of what was to be seen in the final work.

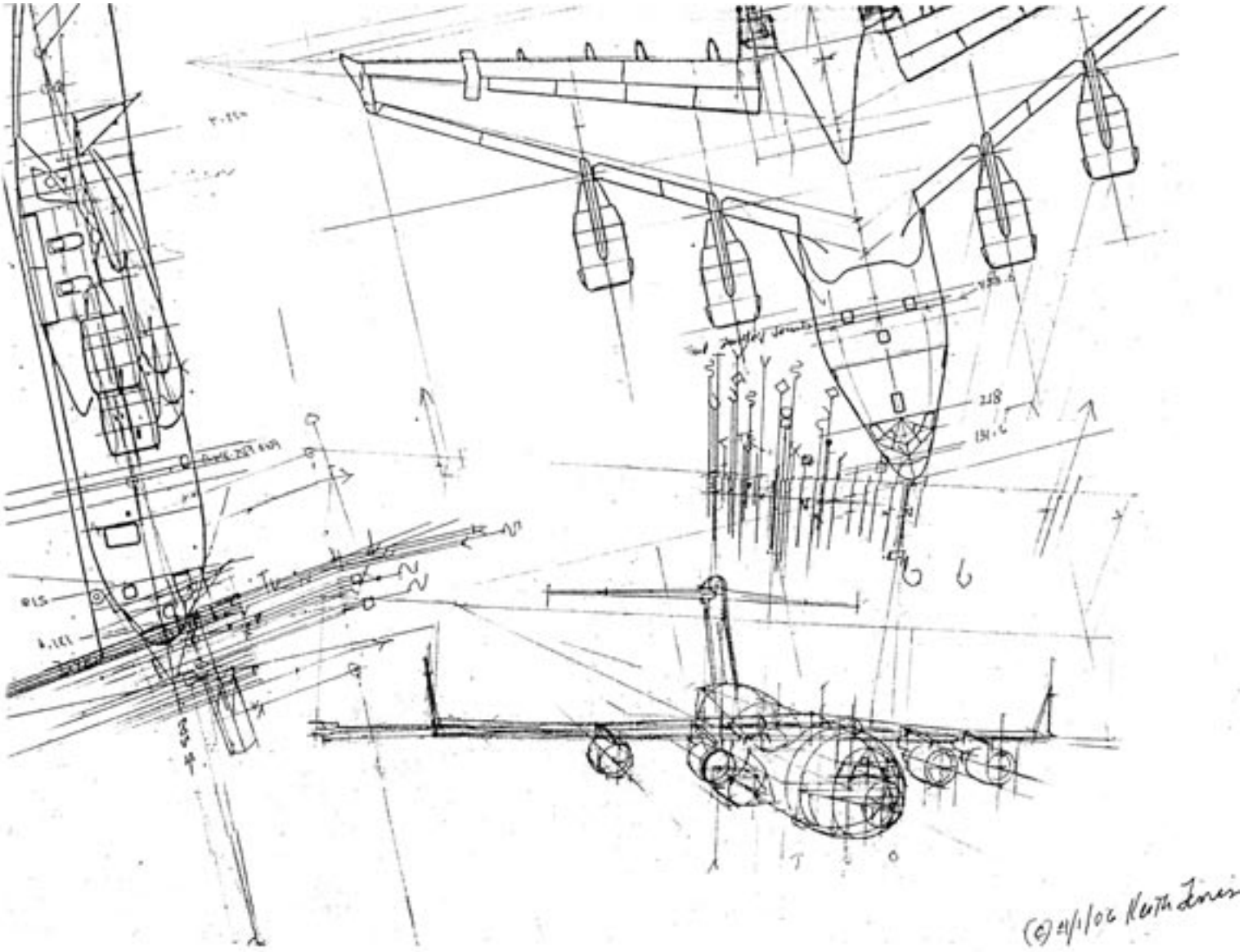


THE INITIAL SKETCH

The view of the aircraft must show all four engines, both wingtips, nose and tail. The nose and cockpit must be dominant, emphasizing the crew in the early morning sunlight and the markings of both the 15th Airlift Wing and its operating associate, the 154th Wing of the Hawaii Air National Guard which provides 40% of the manpower operating the Hickam based C-17s. The new Hawaiian unit "Tail Band" must show clearly.

We must now select the viewing position for the painting relative to the canvas, the aircraft, and its Honolulu background.

The primary purpose of the painting will be the documentation of history in the halls of an Air Force Headquarters. The walls are large so the painting must also be large and generally will be viewed from approximately six feet away. A viewing position six feet from the 56 inches-wide painting produces a visual angle which determines the details which will be seen in the the painting, their sizes, locations and distances from the viewer. Spatial accuracy and maximum three dimensional effect will invite the viewer into the painting, a very important goal in the creation of aviation art.



THE C-17 PROJECTION

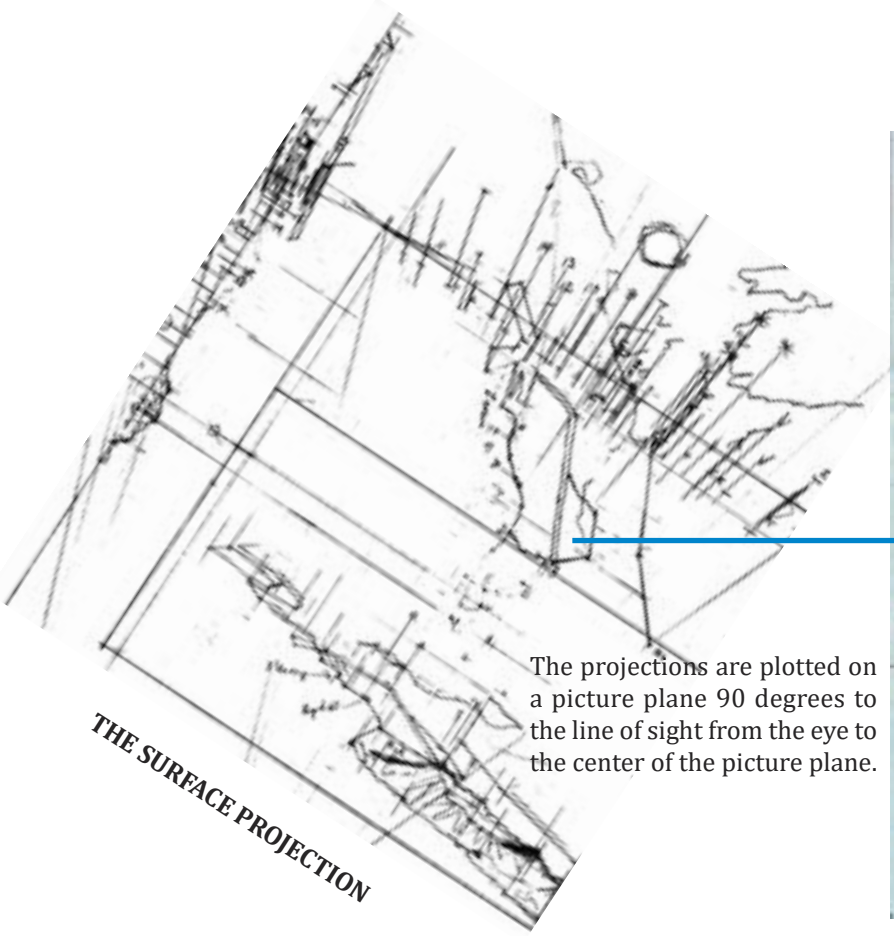
DESCRIPTIVE GEOMETRY

A most valuable tool in achieving three dimensional quality in a painting is the use of Perspective Projection by Descriptive Geometry.

This is the DG plot of the C-17 portion of the painting as seen from the selected viewing position six feet from the canvas. With the C-17 size on canvas being 43' from wingtip to wingtip, the viewing position relative to the aircraft turns out to be 200 feet forward of the nose, 93 feet right of centerline and 32 feet above the horizontal reference plane.

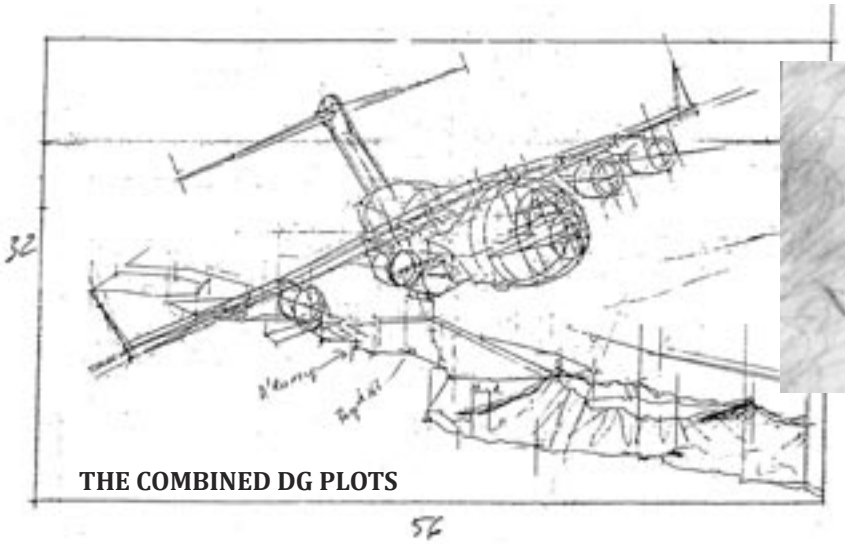
The viewing position for the aircraft was carefully selected to clearly show both wingtips, nose and tail. All four engines are clearly shown, It will be important to show the new Hawaiian "Tail Band," while featuring the cockpit crew in the early morning sunshine.

Note flex added to static wing position of general arrangement drawings.



The projections are plotted on a picture plane 90 degrees to the line of sight from the eye to the center of the picture plane.

The position of the aircraft four minutes after takeoff from Hickam AFB was determined beyond Diamond Head and Waikiki Beach and marked on tracing paper placed over a Honolulu road map. The visual angle from viewer to edges of canvas encompassed the surface area of Honolulu which would appear in the painting. The visual angle to top and bottom of painting determined the location on the surface of the of the lower extremity of the painting. The azimuth and elevation of individual details on the ground could then be plotted as seen on the tracing paper to lower left. A sea level ("side view") seen to left of the tracing paper allowed elevations of details in painting to be located. The blue line indicates where the tracing paper would register over the golf course on the road map.



THE COMBINED DG PLOTS

The 7 inch wide combined DG plots was projected onto 56 inch canvas.

The tonal sketch created on tracing paper over the combined DG plots confirmed tonal plan prior to painting.

THE FINAL DRAWING ON CANVAS

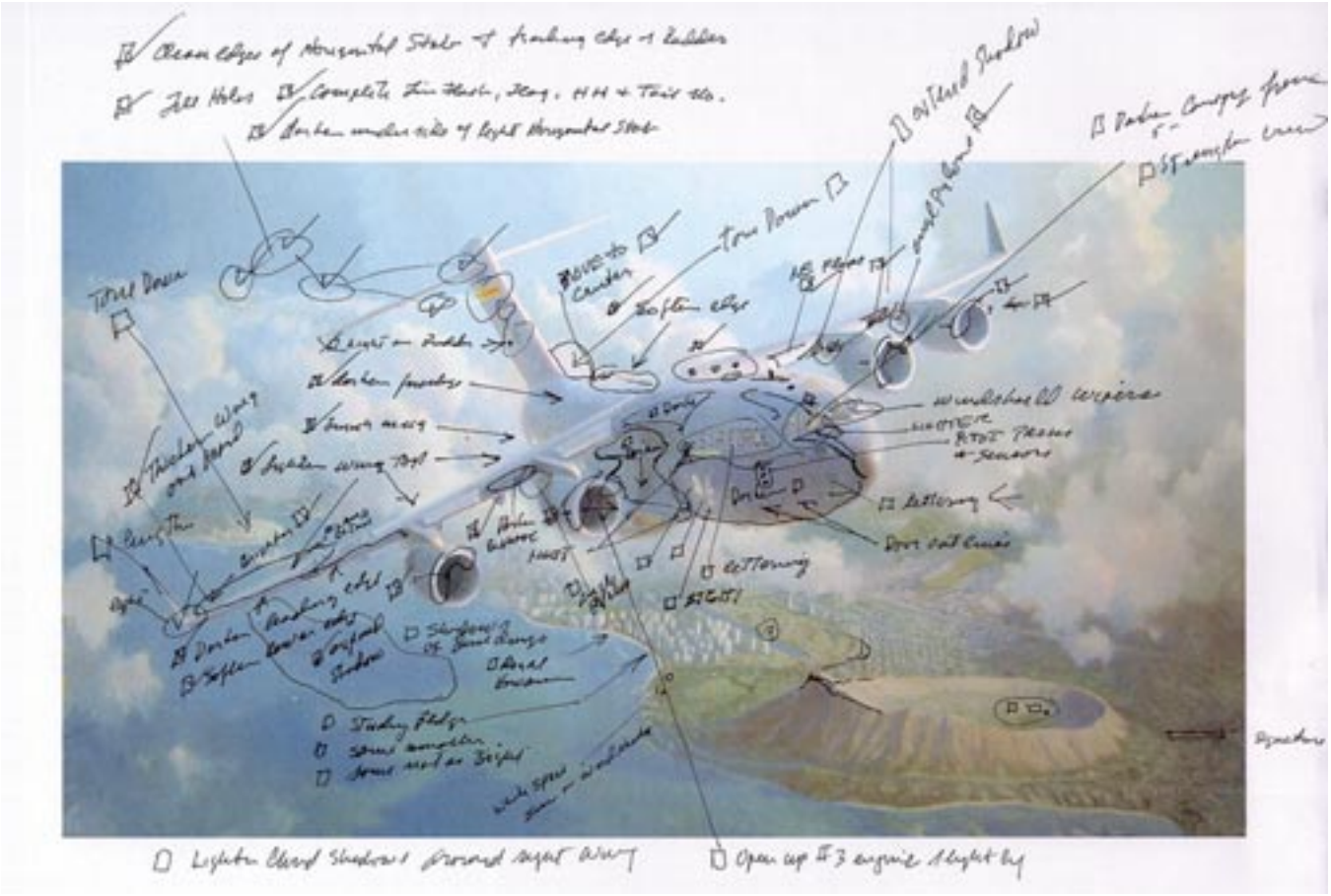
The final drawing created on canvas prior to planning the design of the cloudscape. Slides of as many Pacific cloudscapes as possible were assembled to project above my canvas as I determine and paint the ideal cloudscape in support of the painting.

THE CLOUDSCAPE UNDER WAY

The cloudscape under way, establishing the lighting which will be carried throughout the painting. This cloudscape sets the lighting and mood I had envisioned. It captures the typical wet early morning clouds experienced in Honolulu in early morning.

I had flown in the cockpit of a C-17 at this time of day over this very track during my visit to Hickam in December of 2005.

Backgrounds are most important since they provide the light source, motion, aircraft attitude, mood, time of day and are essential to achieving the all important three dimensional quality of the work.



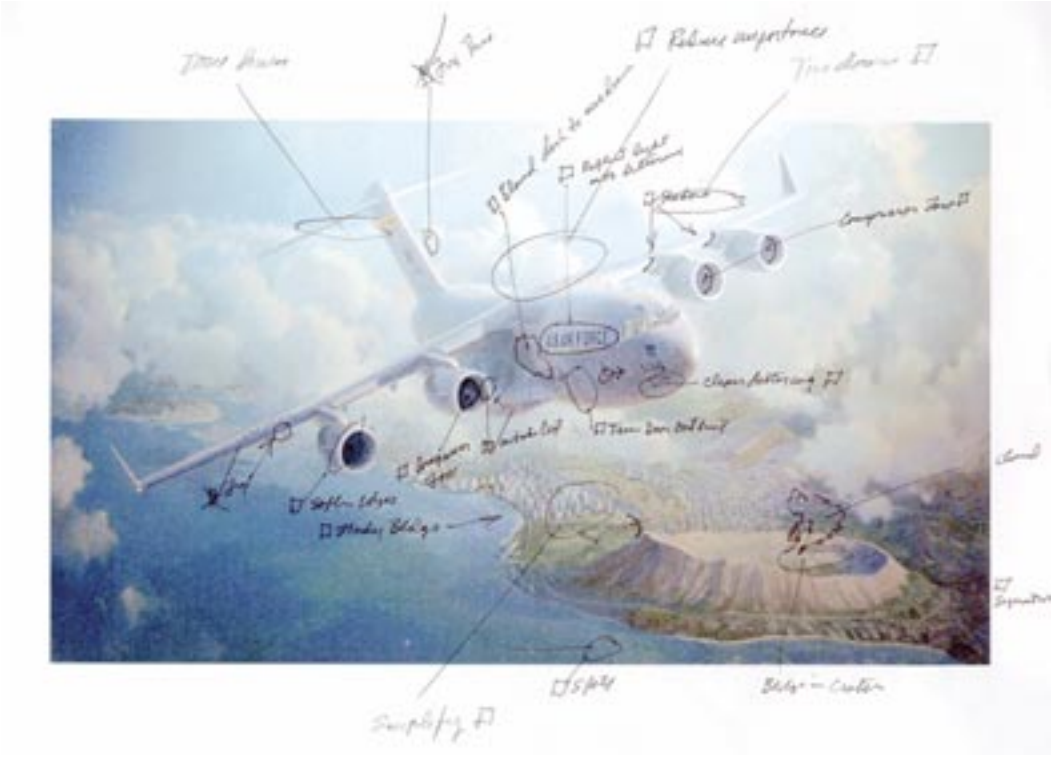
FINAL CORRECTION CHECKLIST

One of the serious problems recognized early on was the powerful competition for attention created by the oval crater of Diamond Head in the lower right. The C-17 and the crater were of equal importance. I had planned to solve this by the adding of a small patch of cloud to break the north rim of the crater. I did not think it would take much to reduce the power of the crater which I believe proved true when you view the finished painting below.

I am no stranger to the C-17 having flown on the first operational SAAF (Short Austere Airfield Landing) in Panama in 1995, and nine missions in eight days into Tuzla and Sarajevo in Bosnia in 1996 for over fifty hours in the aircraft. Peggy and I served on the then McDonnell Douglas C-17 Marketing Team at both Farnborough and Paris Air Shows in the 1990s.

So it has been a real privilege to renew my acquaintance with the C-17, to document the first C-17s to be based outside the continental United States for Air Force Art and to celebrate the introduction of the eight C-17s to Hawaii. Honolulu has changed tremendously since I was born there in 1929. It was fun painting those changes into "Waikiki Sunrise."

Those of you who take advantage of the forum slide critiques will appreciate the self criticism involved in perfecting any painting. Above is my first checklist of things to correct as it neared completion. The longer I sit, the longer my list of things to fix to make it better. Such things as inadvertent tangents must be fixed to enhance depth. Details must be finished, some in the distance must be toned down and lettering enhanced by reflecting sky into it. Some shadows need darkening while some areas of direct light had to be enhanced. Holes, not obvious in paint, will have to be filled to avoid correcting in the printing process. Even when I thought I was finished, John Clark and Paul Rendel visited the studio and added their own commentary (Page 61). They were excellent suggestions which I incorporated with appreciation.



ADDITIONAL CORRECTION CHECKLIST

WAIKIKI SUNRISE - THE FINISHED PAINTING