

# CONFEDERATE AIR FORCE



June 10, 1981

GREAT LAKES WING  
1255 East Poe Road  
Bowling, Green, Ohio 43402

Gentlemen:

This letter serves as a brief summary of our initial experience with the application and performance data we recorded using MICROLON conditioning in our aircraft.

The Great Lakes Wing of the Confederate Air Force is a regional group of aviation devotees, who are dedicated to the goal of acquiring, restoring, operationally demonstrating and maintaining the historic aircraft of the World War II era.

Our Wing was assigned a C47/DC3 aircraft by Headquarters Confederate Air Force, which required dedication, sweat, money, and 6000 plus man hours to restore over a nine month time span.

On March 12, 1981, the aircraft named the "Black Sparrow" was ready to fly to Harlingen, Texas from Toledo, Ohio, approximately 1400 miles, to make its debut at the Headquarters Confederate Air Force Air Show on March 14, 1981. Prior to departure the aircraft was serviced with Microlon treatment in her Pratt and Whitney R-1830-94 engines and the fuel system. In accordance with established instructions, two (2) gallons of CL-100 were added to each engine oil reservoir and one (1) quart of CL-100 added to each main fuel tank just prior to departure.

June 10, 1981

After a flight of approximately six and one half hours, the Sparrow, due to weather conditions landed at Beaumont, Texas and remained overnight. Texana Airlines has a maintenance facility at Beaumont, and they were very intrigued to see our plane in its wartime camouflage with D-Day invasion stripes since a portion of their fleet is still DC-3's.

During the course of our conversation they commented "we have never heard DC-3 engines run as smoothly as the "Sparrow's". The next day the flight was completed to Harlingen, Texas where we flew three segments of the Air Show and received many expansive compliments on our aircraft and its performance.

The MICROLON treatment takes about 8 to 10 hours before noticeable response is evident and after about 20 hours of operation the following data was obtained:

Consumption Gallons/Hour	Cruise Power at 6000 feet		Per Cent Reduction
	Before	After	
Fuel	95	83	12.6%
Oil	2.0	1.0	50%

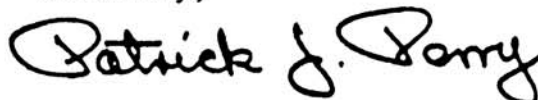
It should be noted these figures are approximate and may vary with additional usage however, the trend shows a significant improvement and an interesting potential.

Our primary goal in treating the "Black Sparrow" was to reduce wear by reducing friction and thereby increasing engine life and reliability. There is a real bonus of approximately \$30.00 per hour of reduced operating cost which makes MICROLON doubly attractive.

Page 3  
June 10, 1981

I will be pleased to furnish you with in-depth experience data at the end of our operational season this winter.

Sincerely,

A handwritten signature in black ink that reads "Patrick J. Perry". The signature is written in a cursive style with a large, looped initial "P".

Patrick J. Perry, P.E.  
Aircraft Maintenance Engineering Officer

PJP:lam