

TYPE OF WEATHER FAVORING CROSS-COUNTRY SOARING

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INTRODUCTION

A combination of skillful piloting and favorable soaring conditions on July 5th, 1964, resulted in at least five cross-country flights from Cumberland, Md. south to Virginia which covered unusually long distances. A brief review of these flights and the associated weather conditions may be of considerable interest to soaring pilots and meteorologists who brief them.

THE FLIGHTS

The general flight path of each of the five sailplanes on July 5th is shown in figure 1.

Flight 1.

George Nash of the Cumberland Soaring Group flew a Schleicher K-8B from Cumberland, Md., to Emporia, Va., a distance of 216 miles. Mr. Nash released over Cumberland at 1020 EST and, with 180 to 360 feet per minute lift, worked to 4,700 feet ASL. He then headed for a cloud street where he found 500 feet per minute lift which carried him to 5,800 feet ASL. With generally 500 feet per minute lift, he had soared to a position just east of Charlottesville, Va., by 1245 EST. The clouds tended to end there, and the low point of the flight was reached because of weakening lift. However, the lift increased to 500 feet per minute after several turns, and the remaining cloud bases gradually became higher. The strongest lift of the day, about 1,000 feet per minute, was encountered near Fork Union on the James River where a maximum altitude of 7,700 feet ASL was achieved.

Mr. Nash landed at Emporia at 1603 EST. He stated that he was getting 900 feet per minute lift just prior to landing, and that cloud streets extended as far as he could see from his altitude of 7,500 feet ASL. He also said that conditions were favorable for soaring a distance of 500 kilometers (about 310 miles), a high level of achievement in competitive soaring.

Flight 2.

George Church of the Mid-Atlantic Soaring Association (MASA) accomplished a comparable distance and, as shown in figure 1, his flight path was very similar to that of Mr. Nash. I did not have the opportunity to debrief Mr. Church.

Flight 3.

Gene Wilburn of MASA flew a Bergfalke II from Westminster, Md., to Emporia, Va., a distance of

203 miles. Mr. Wilburn released over Westminster at 1115 EST and flew on a general course to the south. He experienced good lift at altitudes mostly above 4,000 feet ASL. His maximum altitude of 7,300 feet, reached north of Richmond, Va., was the height that the clouds were based. Cloud streets were encountered from about 50 miles north of Richmond to a point just north of Richmond. Mr. Wil-

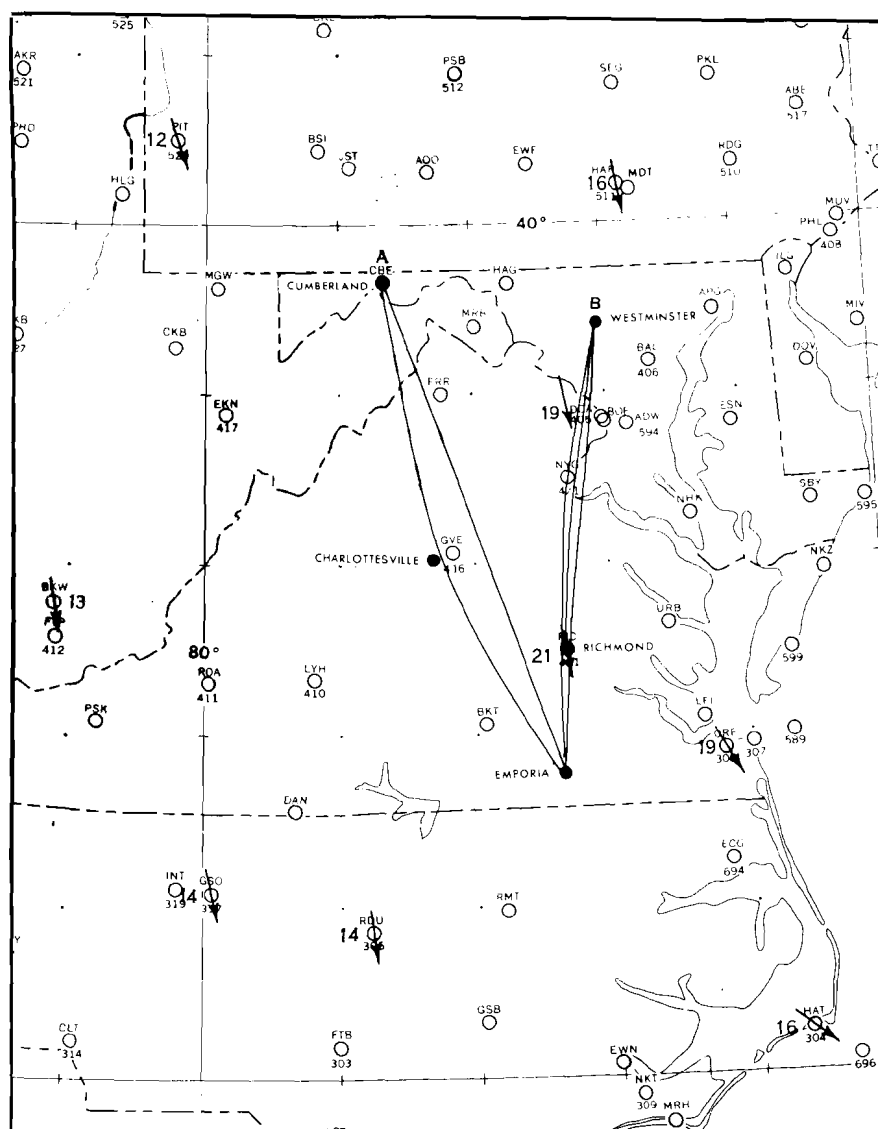


Fig. 1. Soaring flight path A (Cumberland to Emporia) and flight path B (Westminster to Emporia) with average winds over the area of the flights, July 5, 1964. (Arrows indicate average wind directions and numbers indicate average wind speeds in knots at winds aloft stations.)