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Up, Up and Away

In a beautiful balloon of Du Pont nylon, an enthusiastic cult of balloon hobbyists are summoned to the skies

Like executions, pens one writer, balloon ascensions are usually held at dawn.

"It's a fact that balloon flights generally begin at dawn when surface winds are lightest," notes Charles MacArthur, an avid balloonist. "But the comparison of ballooning to the grim business of a firing squad," he adds indignantly, "is a rather unfortunate one."

MacArthur's pointed defense of ballooning is somewhat less than surprising. Not only does this Hartford, Conn., businessman fly balloons in his spare hours but, in fact, he runs the first accredited school of ballooning.

His school, The Aerostats, now boasts two successful years of operation. No previous flight experience is required for prospective students wishing to take up ballooning as a sport or profession. MacArthur elaborates: "Many of our pilots have never flown before and, in some instances, they have never ridden in any aerial device more sophisticated than an elevator or playground swing. Students who have already graduated from our course average 39 years of age and make up a 'mini-America' representing all walks of life—doctors, photographers, engineers, metallurgists. Ballooning is a hobby suited to practically anyone longing for an unhurried view of the world from a vantage point unmatched by modern aerial devices."



\$250. Balloon pilots are licensed by the Federal Aviation Administration. After passing a written examination, a flight check by an examiner, and accumulating eight hours of flight time, the balloonist is licensed as a commercial pilot. Then he may join the barnstormers at country fairs or other public events, such as store openings, and earn as much as \$350 per appearance.

"The balloonist must observe certain rules and regulations," MacArthur explains. "Federal Air Regulations are essentially the same as those ruling fixed wing pilots. Certain state ballooning laws might be considered a little peculiar, or at least out of date." With tongue in cheek, he points out that "in Iowa, the law prohibits you from taking a horse up in your balloon. I doubt that this upsets very many Iowans—balloonists or horses."

The sport of ballooning has not yet attracted untold masses of enthusiastic participants, since even MacArthur describes it as "perhaps the world's most ridiculous sport." Active balloonists number a meager 200; there are only some 50 sports balloons in the country with MacArthur owning two of them. The Balloon Federation of America, an official association of Balloonists, numbered about 25 members last year. Since then, accord-

Unlike the rather dangerous gas-filled balloon now virtually extinct, MacArthur's students learn the art in a hot air balloon. Relying on the basic principle that hot air rises, the balloonist carries no ballast in his wicker basket, but controls rise and fall by means of a propane burner. To climb, he turns on the burner, thereby heating the air within the balloon. His descent involves a simple reversal of the process—he cuts off the burner, the air cools, and the balloon loses altitude.

Completion of a course leading to a balloonist license requires an investment of about five weeks of two-day weekends and

ing to MacArthur, the widespread appeal of the sport has swelled that membership to approximately 60 hard-core enthusiasts.

"It's not a sport for the nervous or for people who easily become excited," MacArthur explains. Yet in hundreds of hours of ballooning by his club, the most serious accident resulted in no more than a bruised leg and some fractured pride suffered by MacArthur himself on a shaky landing.

Partially responsible for this record is MacArthur's ultra-conservative attitude toward ballooning. Student instruction, for example, is limited to flying in winds not over three miles per hour. "In addition," he points out, "the balloon itself features



materials which help ensure safe flight."

The envelope or skin of the balloon must be constructed of a material that combines strength and resistance to the temperatures involved. High tear strength is particularly important during the inflation process when the balloon is often handled in a rough manner. During flight, the envelope must be able to withstand severe wind turbulence as well as, on occasion, tree impact. Since normal operating temperatures inside the balloon range from 200°-250°F., the material's ability to resist heat is also a factor.

Du Pont nylon, with excellent heat resistance and tear strength at 60 lbs. per square inch, is well suited for these demands. "Besides being compact and easy to transport, the nylon envelope is tough enough to withstand hundreds of landings," MacArthur explains. "Moreover, mending is simple. If the fabric tears in landing, you merely patch it like a shirt."

Velcro" nylon tape fasteners also contribute to balloon safety. The rip panel in the top of the balloon is held in position by a circular closure of "Velcro", two mating strips of tape—one that features tiny hooks of nylon monofilament and the other surfaced with a pile of minute loops. As the balloon flight is about to terminate, the balloonist pulls the rip panel control line (approximately 20 feet off the ground) thereby disengaging

the "Velcro" tape and allowing the hot air to escape through the aperture. "After hundreds of landings and reclosures, the 'Velcro' band on my balloon is still functioning beautifully, while the steel ring which carries the rip panel control line has already been replaced," notes MacArthur. "Before the advent of 'Velcro' tape, we had to re-seal the rip panel each time with rubber cement and stitching. This took from an hour to an hour and a half. Re-sealing 'Velcro' tape is a five-minute operation which means less ground time between flights. Needless to say, our students really appreciate that."

While modern materials, such as "Velcro", have given the sport something of a new look, tradition still plays a major role in the art of ballooning. Balloonists always carry a bottle of champagne as standard operating equipment. This is a carry-over from the first balloon flight made in America by Jean Pierre Blanchard 175 years ago. Bearing a letter of introduction from George Washington, Blanchard happened, that day, to land on an unfamiliar farm. The property owner reacted emotionally, as anyone might, and after much bickering, Blanchard finally made peace by presenting the farmer with a chilled bottle of champagne.

Unpredictable landings are still a frequent occurrence in ballooning. "We never land in the same field twice," MacArthur exclaims. "One day as my balloon's shadow

slowly drifted across someone's backyard, the woman of the house came out to hang clothes on the line. She was totally unaware of my presence for several minutes. Then, she finally looked up toward the line and the terrified look that came over her face was my cue to hunt for a new landing area. While quickly ascending I looked back to find her frozen, mute and white-knuckled, to the clothesline."

On another occasion," he goes on, "my big red, white and blue balloon was reported as a U.F.O. The report: 'A large green object was sighted over Connecticut today.'"

MacArthur's future ballooning plans will be taking a new twist. Details are being worked out now for the world's first balloon airline. "It will be sort of an unregimented airline for people who find considerable satisfaction in not knowing where they are going and at what time they'll arrive. The basket will hold two passengers by reservation, first class only with plenty of champagne. We may call it," he winks, "MacArthur's Hot Air Line."

What, specifically, can a neophyte hobbyist hope to get from the sport of ballooning? According to Charles MacArthur, plenty: "Fame, money, a swelled head, landings in manure piles, occasional scratches and bruises, many sunrises to watch and a profound respect for a tiny puff of wind."

—Dan Weiss ■