



Parachutist

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DEAR MEMBER:

Something is happening in California which, in time, will probably affect every parachutist in the country the control of sport parachuting by the State Aeronautic Commissions. Information received from various aeronautic officials reveals that other states are waiting to see how this works out in California before proceeding and therein lies PCA's interest we want to see this done correctly, from the start! But this action is not new to Mr. Darrell Sonnichsen, PCA's Vice President, and we asked him to summarize the past and present actions within California in order that everyone across the country might be thinking about this and making plans. Here is Mr. Sonnichsen's report

PCA REGS ADOPTED BY CAL LEGISLATURE

"The California Legislature passed AB 3138 in the 1961 session empowering the California Aeronautics Commission to regulate sport parachuting in the State. The bill was strengthened further by the adoption of House Resolution #405, and concurred in by the Senate, endorsing the Parachute Club of America Basic Safety Regulations and recommending their adoption by the CAC as the regulations for all sport parachuting in California.

The enactment of this legislation finally brings to a successful conclusion eight years of sporadic negotiation with the Public Utilities Commission and the California Legislature, years during which the very survival of sport parachuting in the state was threatened. A brief summary of the events leading to this action bear review as the PCA hopes to achieve similar uniform acceptance of the BSRs throughout the United States.

On New Year's Day in 1954, two parachutists attempted to attend the Rose Bowl Game in Pasadena by the rather unorthodox means of jumping into the stadium. They didn't even get close but they did ruffle the feathers of the city fathers who preferred to collect admissions at the gate. In the next few months several other incidents occurred in Southern California until finally an appeal was made to the legislature to ban any parachuting in the state.

As a result in 1954 the CAC was asked to institute restrictive regulations on a six months trial basis to lead to legislation. They required among other things:

- o 30 days advance notice of any jump
- o name and license number of pilot and plane
- o name and location of airport and drop zone
- o time of day at which jump was to be made
- o altitude of exit
- o reason for jump
- o certification by deputy sheriff on the suitability of the drop zone and a report on its feasibility.

After testimony at a hearing in Los Angeles and correspondence with the CAC from a representative of the PCA (then NPJR) and the California Parachute Club the regulations died from lack of activity and did not get on the books of the 1955 legislature.

Last fall at the NAA Annual Meeting, Clyde Barnett, Director of the CAC, encouraged the PCA to promote acceptance by the legislature of the PCA regulations and to have sport

parachuting, as are all other aeronautic activities, conducted under the jurisdiction of the CAC. Unfortunately, however, in the early months of this year and before such action could be taken, seven instances involving parachutists and high tension lines (one of which left a hospital in Southern Calif. without electricity for 36 minutes) led the utilities once again to attempt to get the PUC to take remedial action, and to re-establish the abortive regulations of 1954.

The PUC contacted the Commission, and, with the cooperation of a representative of the PCA Board of Directors, a bill was drafted and Assemblyman Lloyd Lowrey introduced the legislation to permit regulation of sport parachuting in California by the CAC. At Assemblyman Lowrey's invitation the PCA appeared before the PUC and explained the BSRs which the committee thereupon endorsed. Subsequently Gov. Edmund G. Brown signed AB 3138 into law.

In addition, the PCA wrote the following resolution which was passed by both Assembly and Senate and forwarded to the CAC, thus assuring the continued safe practice of the sport and giving it the recognition and stature which its increasing popularity commands throughout the state:

HOUSE RESOLUTION 405 INTRODUCED JUN 12-1961 By Mr. Lowrey: House Resolution No. 405
Re: to parachute jumping

WHEREAS, There are each year in California an increasing number of sport parachute jumping contests, exhibitions and training exercises; and

WHEREAS, Safety in such sport parachuting activities is necessary in order to protect the participants, spectators, and property owners from harm; and

WHEREAS, There is in the United States the Parachute Club of America whose members have for some years engaged in the sport of parachute jumping; and

WHEREAS, After years of experience the Parachute Club of America has established basic safety regulations providing for the safe conduct of sport parachuting activities; now, therefore, be it

Resolved by the Assembly of the State of California, That the Members of the Assembly endorse the basic safety regulations of the Parachute Club of America as a means of achieving safety in sport parachuting activities and recommend that the California Aeronautics Commission give careful consideration to these regulations of the Parachute Club of America prior to adopting regulations for sport parachuting in California; and be it further

Resolved, that the Chief Clerk of the Assembly is directed to transmit a copy of this resolution to the California Aeronautics Commission."

WHAT DOES ALL THIS MEAN? Simply, that parachutists within California will be subject to the jumping regulations set up by the state and that infractions of said rules will be handled in the normal state courts. PARACHUTIST will publish further info as this action moves toward a conclusion.

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FAA SUPPLEMENTAL TYPE CERTIFICATES (STC): Is the door off your aircraft? Is the right control column removed? Are your static lines hooked to a floor ring? Do you have a Supplemental Type Certificate from the FAA? If no STC, prepare to be unceremoniously grounded by the FAA on short notice!!

WHY? Well, some urgent requests from all over the country to do something even from non-PCA members (!), prompted us to go to the Los Angeles FAA Regional Office, Region 1 and return with the following info:

When a manufacturer produces a new airplane, FAA regs require that the aircraft be inspected and tested by the FAA technical personnel to insure that it meets all flight standards established by the US government. After the aircraft is thoroughly inspected and tested, the FAA issues a "Type Certificate" to the manufacturer clearing it, exactly as tested, for manufacture and flying within the US.

WHAT IS AN STC? Anyone who desires to fly this previously approved type aircraft, using modifications or alterations which were not included in the original type certificate, must apply for and receive approval from the FAA in the form of a Supplemental Type Certificate (for that one specific model of aircraft) before they can legally fly the modified or altered aircraft. The purpose is to insure that any and all aircraft modifications and alterations are properly examined and tested by the FAA prior to their use. The instructions relative to all STCs are contained in Civil Air Manual #1, available at airports and FAA offices.

HOW IS AN STC OBTAINED? In one of two ways. (1) Apply yourself. Designate the changes desired to a certificated mechanic, allow him to make the changes on the aircraft, complete FAA Form ACA-2417 detailing all information relative to modifying the aircraft and documenting them accordingly. On receipt of said form, the FAA technical personnel will inspect and test the aircraft. If approved, they will complete the 2417 Form and return it to you showing FAA approval.

(2) Someone may already have submitted a request for modifying an aircraft for the same purpose and received an STC from FAA. If so, then you may write to said individual, obtain a copy of the approved STC, and give it to your certificated mechanic as authorization to modify your aircraft. However, there is a restriction to this. When an STC is issued, an indication is made in paragraph 4a of the form as to whether or not the applicant can make the STC data available for sale or release to other persons. In order to procure a "yes" to release said info, the applicant must submit enough details and instructions in writing so that any certificated mechanic may make the modifications called for from only the written instructions contained in the STC. The owner of the STC can place any fee desired on the STC when he desires to sell it to others.

HOW IS THE STC USED? After receipt of the STC, the initial conversion of that particular aircraft must be made by a certificated aircraft mechanic, an inspection made by an FAA Aircraft Inspector, and an appropriate entry made on an FAA 337 (Repair and Alteration Record) Form and the aircraft log record. Each conversion after that is merely noted in the aircraft log.

Miscellaneous questions:

a. Do you have to buy an STC from someone who already owns one? No, you may go through the above procedures and obtain your own or obtain it through the present owner.

b. Can a Cessna STC be used on a Tri-Pacer? No, each type of aircraft must have a separate STC since their physical configurations differ.

c. Can a Cessna 170 STC be used on a Cessna 172? No, same answer as b above.

d. Can a Cessna 172 STC be used on a Cessna 182 aircraft? Yes, provided that both aircraft were listed on the STC request and the operating instructions includes the instructions for modifying both types.

e. What STCs have been issued thus far for modifying aircraft for sport parachuting? PCA owns two STCs: one for the Cessna 170, 170A, 170B, 180, and 180A Landplanes, and one for the Cessna 172, 182, and 182A Landplanes. A sport parachuting modification for the Piper Tri-Pacer is owned by Mr. Charles Dame, 51 Linden St., Rochester, New Hampshire. Also, we have written to the four FAA Regional HQ in an attempt to ascertain just what types of

aircraft already have STCs approved for them. At this writing all replies have not been received. **

HOWEVER, in order to insure that sport parachuting will not be impeded through a lack of STCs, the PCA is going ahead with plans to arrange for the procurement of an STC for every common type of safe sport parachuting aircraft. These will include all the high wing four-place Cessna series, Tri-Pacers, Howards, some Beechcraft, Aeronca, and several others. After they have been procured, a fee of \$5.00 will be established for each STC until such a time as we recoup the cost of obtaining the approvals. After this the cost will be reduced to that of reproducing, processing, and mailing. As additional STCs become available through PCA we will so announce in the PARACHUTIST. If you're in a rush for STCs, other than the Cessna type, we suggest that you procure your own.

** STC SA3-639 for the door removal on Piper PA-22 135, 150, and 160 airplanes has been issued to Mr. C. L. Haeseker, Lincoln Aviation Institute, Inc., Box 4168 Havelock Station, Lincoln, Nebraska.

* * *

Mr. George Gividen, President of the Tri-State Skydivers, Inc., in New York, has some excellent comments to make, based on a fatal accident in his airplane, which we feel applies to everyone at this time:

"There has in the past been considerable emphasis on safety in sport parachuting and on the rigid adherence to both PCA and FAA regulations governing parachuting. Unfortunately, there has been an equal amount of disregard for safety in operating jump aircraft and there has been almost total disregard for Federal Aviation Agency regulations governing aircraft flying parachutists. Several jump aircraft operators have in recent weeks found themselves subjected to \$1000.00 fines on each of several different counts and have found themselves with void insurance policies as a result of FAA regulation violations that came to light only after their planes had crashed killing the pilots and totally demolishing their planes (one Cessna 172 and one Cessna 182). Both operators were totally unaware of the fact that they were violating FAA regulations. In consulting nine different clubs and one other sport parachute center other than the Tri-State Sport Para. Center where one accident occurred, and sixteen different aircraft owners who fly parachutists it was found that NOT ONE SINGLE club, pilot, center, or aircraft owner was familiar with these regulations, and that every one of these clubs, owners, etc. was guilty of violating these regulations.

These regs. are extremely clear, easy to understand, and are very specific. Each and every one has been in effect for at least two years and on each violation the operator, owner, and pilot are all subject to fines of 1000.00. As some hapless owners and parachute clubs have recently found out, ignorance of the law is no excuse. The following regulations are quoted here for the information of all parachutists, owners of planes flying parachutists, pilots, and airports where parachuting is allowed. These are the current regulations as set down by the FAA in Washington, D.C. All apply to every state in the Union and there are no exceptions whatsoever. All but two are plainly written on the Supplemental Type Certificates for Cessna type aircraft that MUST be secured before ANY plane can be flown with the door off or the right front seat removed. Contrary to prevailing opinion there is NO blanket clearance to fly any Cessna type aircraft or any other type aircraft with either the seat out or the door removed. The PCA does have Supplemental Type Certificates which they have been given permission to issue to PCA members or planes flying parachutists for Cessna 170, 170A, 170B, 172, 180, 180A, 182 and 182A type aircraft. No clearance has been given for the Cessna 175, 150, 185, or 195. These certificates may be secured from the PCA at a cost of 10.00 per certificate. A certificate MUST be secured from the PCA or FAA before the door can be removed from any aircraft. BUT THIS IS NOT ENOUGH, as will be covered in the following FAA regulations:

1. Before any plane can be flown with the door off, steering column removed, seat removed, rear window removed, static line attached, or with a step affixed as with the 170 and

180 models, a Supplemental Type Certificate must be secured from the PCA or FAA.

2. This certificate must then be shown to a licensed A.&E. Mechanic who must examine the aircraft in question. This A & E mechanic must then remove the door or front seat, etc. and make an entry in the plane's log book. If the log book entry is not made the plane is flying in violation of FAA regulations.

3. The A & E mechanic must then fill out a Repair and Alteration Certificate (Form 337). He must affix one copy of this form to the dashboard of the aircraft in full view of the pilot. One copy is given to the aircraft owner and the third copy forwarded to the FAA immediately. If a copy of this form is not affixed to the dashboard of the aircraft and a copy is not on file with the FAA the plane is flying in violation of FAA regulations. Result if caught: another \$1000.00

4. The following FAA regs. must be adhered to and must be plainly printed on placards affixed to the dashboard or other prominent place in the front of the aircraft in clear view of the pilot: (required placards in quotes.):

a. "This airplane's maneuvers are limited to normal take-offs, climbs and landings, banks not to exceed 30 degrees, and glides, landings, and speeds not in excess of 115 mph TIAS." No cessna type aircraft may under any conditions be flown at a speed of greater than 115 mph when the door has been removed.

b. "Seats and safety belts must be provided for each and every occupant and the pilot." (This regulation is probably violated more than any other by parachute pilots who allow a jumper to sit on the floor of the aircraft after the right front seat has been removed.) Penalty for violation: Another \$1000.00 and suspension of the pilot's license.

c. "All loose objects in the cabin must be properly secure."

5. The following FAA regs. must be adhered to and must be plainly printed on placards affixed to the dashboard or other equally prominent place in full view of the pilot and ALL aircraft occupants (required placards in quotes):

a. "Jumpers' static lines must be kept free of pilot's controls and aircraft control surfaces."

b. "No Smoking Permitted."

c. "Only one door may be removed at a time with its corresponding rear window, seat, and control column; rear window removal is optional."

6. No Cessna 170, 172, 180, or 182 type aircraft can under any circumstances be flown with flaps down, nor can these flaps be put down, at speeds in excess of 100 mpg. This applies regardless of whether or not the door has been removed. For some older models the maximum speed at which flaps can be lowered is 80 mph. To lower these flaps at speeds in excess of 100 mph or to attain a speed of greater than 100 mph with the flaps down is extremely dangerous as the plane is not built structurally to withstand such stresses on the wings. In the last three weeks there have been two separate instances in the Eastern United States where a jump plane pilot descended at too great a speed after putting jumpers out. In both instances the pilot was descending at speeds in excess of 100 mph with flaps down. In both instances one flap tore completely out of the wing taking part of the wing with it. In both cases the plane attained even greater speeds as it went into a spin earthward. In both cases this tremendous speed caused a complete disintegration of both wings seconds later. In both cases the plane plummeted into the earth straight down (without wings) at a speed estimated at approximately 270 mph. In both cases the pilots were killed instantly on impact. In both cases the pilots were parachutists with almost 400

jumps between them. In both cases the pilots were not wearing parachutes and in both cases the pilots had an excellent chance of getting out of the planes and parachuting safely to earth IF THEY HAD BEEN WEARING PARACHUTES.

7. This is not an FAA regulation but aeronautical engineers have determined that it is relatively unsafe structurally for any Cessna type aircraft to descend at a greater rate than 1800 feet per minute. It is a common practice among skydiving pilots to drop jumpers at an altitude of 7200 feet and have the plane on the runway $2\frac{1}{2}$ minutes later ready to pick up another lift. NO AIRPLANE is designed to repeatedly take such rapid descents. Furthermore, in addition to imposing extremely dangerous structural stresses on the aircraft, these rapid descents shorten the aircraft engine life by approx $\frac{1}{2}$. The engine which has become heated in the ascent is cooled entirely too rapidly by cutting the engine immediately and going into a rapid descent. To assure maximum engine life the engine should be cooled gradually. Otherwise warping takes place. The Cessna type aircraft is a plane that can be flown safely for decades with very little maintenance BUT only if flown in accordance with the limitations of the aircraft. Because a plane does not disintegrate in the air on successive rapid descents does not mean that it will not disintegrate at a later date with EVEN LESS STRESS - for each such rapid descent weakens the aircraft structure (particularly the wings) just a little bit more.

It is high time that parachutists concern themselves with aircraft as well as safety in the actual act of conducting a parachute jump. There are two more instances in the last two weeks of parachutist pilots crashing planes that did not result in a fatality. All in all, jump plane pilot fatalities and pilot injuries, in terms of percentages, HAVE exceeded parachuting fatalities and probably parachuting injuries. THERE IS NO MORE EXCUSE FOR THESE JUMP PLANE CRASHES than there is for a parachuting accident.

In closing, FAA regulations are there for a purpose. Abide by them and see that your pilots abide by them. To abide by the simple regulations listed above is to save many fines of \$1000.00 each, the lives of yourself and your pilots - and remember that most hull damage policies and liability policies are void when any of these regs. are being violated. Furthermore, parachuting as a growing sport needs the cooperation of the FAA more than ever before. And violations of these regulations in no way increase or aid the relationship between the Parachute Club of America and the FAA. MAKE SURE THE PLANE YOU JUMP IS AS SAFE AS THE PARACHUTE YOU JUMP.

Capt. George M. Gividen, USA (Retired)
President, Tri-State Skydivers, Inc."

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ARMY PARACHUTE TRAINING FILMS: The Army has several training films which can well be utilized by jump clubs. Trouble was that some Army installations lent them to civilian clubs and some didn't. PCA has finally gotten this ironed out and word has gone out from the Office of the Chief Signal Officer in Washington that the films involved have been reviewed and are now cleared for public non-profit showing to professionally interested groups such as parachute clubs. To obtain them on loan, contact the Signal Corps Film Library at any Army installation. We also ask that you take GOOD care of these films since we ALL are judged by the actions of each other.

The films are:

- TF 10-2455 Emergency Parachute Jumps.
- TF 31-2128 Personnel Parachute Malfunctions and Activation of Reserve.
(Watch for differences in our techniques.)
- TF 31-2129 Entanglements and Recovery from Twists.
- TF 31-2130 Parachute Landing Falls (Recommended for all ...!!!)

RECORD ATTEMPTS: Fact: No official national or international records have ever been established in the field of sport parachuting within the US.

Now that sport parachutists are becoming proficient in the lower altitudes, many are looking skyward with thoughts of placing the US in the limelight of international record holders. The question is: Where do we go from here?

During the past 6 months of 1961 PCA has received six requests for information on making attempts to break international sport parachuting records currently held by the Iron Curtain countries and for establishing the first official national records in the US.

Anticipating this situation PCA set up a Records Committee in April of 1960 to organize a records section and set up a method of organizing and conducting record attempts. Unfortunately, these men could not spare the time for this activity and up to last month nothing had been accomplished. However, we now have the FAI requirements, have established contact with the NAA officials for the procurement of the necessary barographs, and are setting up the procedures for making and conducting such attempts. Unfortunately, FAI requirements are quite complex and detailed, eliminating our original thoughts on making such attempts a simple matter.

While we are completing arrangements for making official (recognized by NAA and FAI) record attempts, it is necessary that we establish unofficial records of sport parachuting within the US. To obtain this PCA will accept positive proof for unofficial US parachuting records in the following international record events:

FAI RECORD EVENTS

1. Individual jumps: (Separate records for men and women)

- a) Height jumps with automatic or controlled-opening, without delay (up to 10 seconds).
- b) Jumps with delayed opening (the long fall...).
- c) Precision (landing) jumps with automatic opening, or controlled opening without delay (up to 3 sec).
- d) Precision jumps with controlled opening (the long fall and target accuracy).

2. Group jumps: (Separate for men and women).

- a) c)
- b) d) Same events as above.

Note: Night jumps shall be classed separately from day jumps.

If you wish to make a claim for an unofficial US record, submit the following information:

Classification (above) of jump.

Full names of participants, including pilot(s), and addresses

Date, place, time:

Airfield and DZ used

Altitudes: DZ above sea level, exit altitude, opening altitude

Time (in seconds) of falls. Exact distance from target in feet, inches, and inch increments.

Type of canopy and modification.

Other pertinent data.

Corroborating statements from pilot and air and ground witnesses.

Number of stop watches and altimeters or other verifying instruments used.

REMEMBER, the better you are able to prove your claim beyond any doubt, the better the chance for holding such a record. Incidentally, the Air Force did not bother to register Capt. Kittinger's high altitude jump, therefore it is not an official FAI record! GOING UP.....!

FINALLY..... For years PCA has been engaged in getting sport parachuting events on newspaper sport pages and finally Mr. Gus Knoph of Rheem, California has done it. Gus has come up with a weekly sports column on sky diving in the Contra Costa Times for Walnut Creek, with a circulation of approx. 50,000. We believe this is the first of such scheduled coverage. Gus also boosted sky diving with his nationwide appearnace and the free-fall films of Jim Pol on television's PM West recently go get 'em Gus!

IMPORTANT MEMO: The Application Blank for the volunteer workers at the 1962 WORLD MEET will be in the July PARACHUTIST.

Sincerely yours,

PARACHUTE CLUB OF AMERICA

Parachutist

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