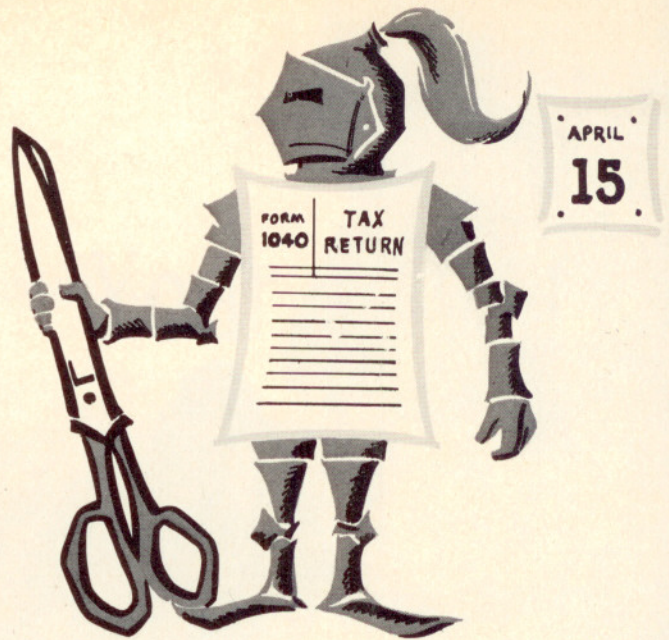


Operation COST CUT

*You may be able to reduce flying expenses
by taking advantage of the many
legitimate tax deductions*



You may be one of those skeptical persons who find it hard to believe that the cost of flying your own airplane and income tax time are closely related. But let's take another look at the facts—you may change your mind.

The manner in which you fill out your Federal and State income tax forms could very well determine whether your flying is a luxury or an economical means of transportation.

This does not mean that you would have to resort to conscience-twining practices around April 15. Simply take advantage of all of the tax savings the law allows you as an airplane owner or operator. It is possible you then will find that your air transportation costs in many instances are competitive with automobile travel.

There is nothing wrong, either legally or ethically, in taking all of the deductions to which you are entitled. When you start filling out your forms it is important, however, that you recognize the difference between tax avoidance and tax evasion. Tax avoidance is an appropriate, intelligent legal activity which becomes important in direct proportion to your income, particularly if you earn more than \$5,000 a year. It is merely making sure that you get the most of all tax savings legally available to you. Tax evasion, of course, is a different matter and cannot be condoned. It is an attempt to escape, through illegal methods, paying the taxes the law requires you to pay.

The Federal Internal Revenue Service has pretty well accepted the premise that expenses incident to the use of an airplane for business trans-

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portation should not be any less deductible than the costs of an automobile used for the same purpose.

Last year, in order to educate itself on this problem affecting such a large part of its membership, the Aircraft Owners and Pilots Association participated in the effort of one of its members to convince an IRS field representative that, for tax purposes, a taxpayer is not required to use the cheapest mode of transportation when he travels between two points on business. The question continues to pop up in different parts of the country, but AOPA continues to supply its members with AOPA publications on tax savings to combat, among others, the odd contention that a salesman, for instance, must travel by automobile because it costs less to operate than an airplane.

The AOPA member with whom AOPA joined was, along with several other traveling representatives of a national organization, given an automobile allowance of eight cents a mile. Rather than use an automobile, the AOPA'er elected to use his airplane. He had to bear all direct and indirect expenses of operating the Cessna 140 out of his mileage allowance.

Finally, he was called into an IRS office to explain his income tax returns for the years of 1954, 1955 and 1956.

"The IRS man seemed to take the

attitude that extra expenses incurred in flying were just my tough luck," the member said when he wrote AOPA National Headquarters calling the matter to its attention. "He insisted that I should use an automobile, just like the other representatives."

AOPA, of course, takes a dim view of the Federal agent's interpretation of the income tax laws. Its stock of material showing that travel by private airplane often was more economical in the long run than other means of transportation was sent to the member. He also received a copy of an AOPA Special Report entitled "Tax Savings for Pilots and Owners."

About a month later another letter was received from the AOPA'er. In sharp contrast to the first communication, it was buoyant and there was no hint of taxpayer's gloom.

He wrote that AOPA probably would be interested in knowing that with the information it had sent out he had been able to "settle his troubles" with the Treasury Department. When all of the facts were explored, it turned out that the Government owed the member \$75 rather than the member being in arrears.

The member and the Government called it a draw—neither side collecting from the other—in order to bring about a quick settlement. IRS first claimed that the taxpayer owed \$1,700 additional tax on his income for only one of the three years in controversy.

Certain basic deductions are available to all aircraft owners (as well as other taxpayers) whether or not

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their aircraft is used to any degree for business purposes. These deductions are available only if the standard deduction is not used. If the airplane is used in business, even on a part-time basis, the possibilities for legitimate deductions are sharply increased.

The standard deduction for married persons whose adjusted gross income is at least \$5,000 is 10% of one's adjusted gross income—not to exceed \$500—if an individual return is used, or \$1,000 if a joint return is filed. A single person whose adjusted gross income is \$5,000 or more is entitled to deduction of the lesser of 10% or \$1,000, rather than a mere \$500. If an individual's adjusted gross income is less than \$5,000, the standard deduction is 10%.

If your deductions exceed the standard allowance, you should itemize them. Most aircraft owners undoubtedly will have a smaller tax burden if the deductions are itemized.

If you borrowed money to buy your plane, the interest you pay on the loan is deductible, whether or not the aircraft is used for business. State aircraft and pilot license fees also would appear to be deductible.

Any losses or damage to aircraft, not compensated by insurance, due to fire, theft or casualty would be deductible. This includes losses or damage to your aircraft in flight which are not due to your willful act or negligence.

Expenses incurred by Civil Defense volunteers in the performance of their volunteer duties, such as the expenses of attending state meetings or other expenses attributable to the rendition of such volunteer services, have been ruled deductible contributions. This should be of particular interest to volunteer sky-watchers, Civil Air Patrol personnel and others engaged in similar activities.

Occasionally, an AOPA member writes that he learned to fly so that he could use his own airplane, or one owned by his employer, in conducting his normal business activities. "Can I deduct the cost of this training?" he asks. Normally, a deduction of this sort is not allowed, any more than the cost of learning to drive an automobile is deductible. However, a professional pilot who pays for additional training required by his employer can make a good case for a tax reduction.

When your plane is used solely for business all your expenses relating to the aircraft are deductible, even if the standard deduction is used. If the aircraft is used both for business and pleasure, that portion of the expense which can be attributed to the business use of the plane is deductible.

Other than the important item of depreciation allowance on your aircraft, there are several things you should watch particularly if your plane is used in business.

• 1. If you hire a pilot, and any other crewman, to fly your plane their salaries would be deductible.

• 2. Hangar rental or any other cost connected with storing, maintaining, or parking your plane would be deductible.

• 3. Your total gasoline and oil cost would be deductible. Of course, if you deduct the total cost of oil and gasoline you cannot take a separate, additional deduction for state and federal gasoline taxes you may pay. If you obtain Federal or State refunds on the gasoline taxes you pay, the refunded amount cannot be included in your cost, of course.

• 4. The premiums for insurance that you carry on your airplane would also be deductible as a business expense.

• 5. Any judgments you were forced to pay due to your negligence in flying would be deductible.

• 6. If you suffer a loss when you sell your airplane, such loss is deductible.

• 7. Cost of all repairs made on your airplane during the tax year would be deductible; cost of additional tires, if used for less than one year, also would be deductible as repairs. If the tires had a greater life you would then deduct depreciation over the life of the tires rather than take the full amount in one year.

• 8. When your plane is used for business activities only a part of the time, you should carefully compute the exact percentage of time that it is used for business transportation. That percentage would apply to the items normally deductible as a business expense.

Now for the depreciation item which is extremely important in reducing the cost of business flying:

When your aircraft is used in trades or business, a depreciation deduction is allowed to the extent of that use. This means that if one-half of your airplane mileage is for business purposes, and the other half is for pleasure flying, then one-half of the regular depreciation allowance may be deducted on your Federal tax return.

Generally, the purpose of the depreciation deduction is to permit the taxpayer to write off the cost of his property over the estimated useful life of the property. The key question, therefore, is: What constitutes the useful life of an airplane for this tax purpose?

Taxing authorities consider that a five-year life for aircraft is reasonable. This official position was taken in an IRS publication known as "Bulletin F," and litigation of this issue generally confirms the reasonableness of the five-year period. However, in one case there was agreement between the Commissioner of Internal Revenue and the taxpayer during the course of the trial that four years would be a reasonable life expectancy for an airplane. The court approved the agreement.

The result of all this is that the taxpayer is on safe ground when he claims a five-year useful life for his aircraft. He even has some authority for claiming a four-year useful life. Therefore, the taxpayer normally may write off

the cost of his aircraft used in business at the rate of 20% per year. He might even be able to write off the cost in four years.

A recent law allows an even more favorable depreciation allowance in certain special cases. It applies only to new aircraft purchased on or after January 1, 1954. If you have bought a new plane since that date you can take advantage of what the Internal Revenue Code describes as the "declining balance" method of depreciation. This method allows you to write off the cost of your airplane at 200% of the "straight line" rate. The "straight line" rate is the normal method used when the taxpayer writes off the cost of his airplane by taking equal amounts each year as a deduction for depreciation.

Here is how the "declining balance" method would work on a new \$10,000 airplane with a useful life of five years:

	Remaining Basis	Declining Balance Rate	Depreciation Allowance
1st year	\$10,000	40%	\$4,000
2nd year	6,000	40%	2,400
3rd year	3,600	40%	1,440
4th year	2,160	40%	864
5th year	1,296	40%	518.40

(The undepreciated remainder of the cost represents salvage value.)

The effect of this new provision is to permit you to write off approximately two-thirds of the cost of new planes and equipment over a period equal to one-half of their useful lives. This method permits a depreciation deduction of twice the "straight line" rate in the first year after the aircraft is purchased. This offers an obvious tax advantage to many taxpayers.

The recent law also allows the "sum of the years-digits method" for new airplanes bought after December 31, 1953. In many cases, this method will be even more advantageous to the taxpayer than the "declining balance" method. The "sum of the years-digits" method of depreciation allowance computation, on an aircraft costing \$10,000 with a useful life of five years, is worked out as follows:

Get the total of the digits the years for which the depreciation is to be taken. In other words, add the digits 5, 4, 3, 2, 1; the total is 15, which is the sum of the "years-digits."

This figure then is used in the following manner:

	Rate of Depreciation	Depreciation Allowance
1st year	5/15ths	\$3,333.34
2nd year	4/15ths	2,666.67
3rd year	3/15ths	2,000.00
4th year	2/15ths	1,333.33
5th year	1/15th	666.66

This listing and the treatment of depreciation is by no means exhaustive. Information given in this article should be used only as a general guide. Your accountant and attorney will be helpful allies in applying these principles to the facts of your case, as well as suggesting

other avenues of tax savings.

Aside from strictly aviation tax savings, you should give careful attention to all of your claimed deductions for transportation, travel and other expense account items. The IRS has indicated a tightening up of its requirements for reporting these items. It is extremely important to keep detailed records of all expense items and particularly expense account money reimbursed by an employer.

The income tax form for 1957 contains a new line (6-A) which would appear to require the taxpayer to write down on the first page of the form the amount reimbursed by his employer in expense account money. The taxpayer should disregard this line on the 1957 return. However, starting with the 1958 return, this information will be required. Hence, it becomes essential for the taxpayer to keep records, starting January 1, 1958, of the expenditure of expense account funds.

However, regulations in effect since 1921 require the taxpayer to report the amount of money he receives as expenses from his company and itemize these expenses. If the totals balance, he owes no tax on the expense money. If receipts exceed disbursements, he is required to include the balance as taxable income.

A new official worksheet (IRS Form 2106), now available at local tax offices, is designed to help calculate proper tax treatment for transportation expenses, travel expenses while away from home, and reimbursed business expenses. This form may be, but is not required to be, attached to the return.

In connection with preparation of your tax return, it should always be borne in mind that specific facts, and the treatment of them, will be material to each situation. The application of the law to them is the realm of your lawyer, and by consulting him in any substantial case, when in doubt, you best insure maximum savings.

Although most of the flyer's attention will be centered on his income tax return, he should not lose sight of the fact that substantial savings also are possible if he applies for all of the gasoline tax refunds to which he is entitled. One cent of the three cents per gallon Federal gasoline tax is refundable to non-highway consumers. Many of the States also allow refunds of all or part of the State tax paid on gasoline used in aircraft. You should investigate the situation in the States where you make your major purchases. AOPA now is in the process of revising its pamphlet, "Aviation Gasoline Refunds," which was published in 1956. This booklet lists the gasoline tax and the refunds allowed in each State, and explains how refund applications should be filed. A limited number of the 1956 edition are still available.

All in all, there are legitimate ways in which you can cut down the cost of flying. Perhaps you now will agree with us that the cost of flying and income tax time are closely related. END

Fabric

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ers of New York City, points out that moisture tends to increase tensile strength and weight of undoped fabric. The strength of fabric dried out by improper storage may sometimes be restored by leaving it in a place where the humidity is sufficient.

Dope, on the other hand, doesn't give a hoot about moisture, but is extremely sensitive to changes in temperature. Cold makes it brittle and hard. Heat makes it soft and ductile. Studies conducted by the CAA Technical Development and Evaluation Center at Indianapolis, Ind., have proved that good fabric covered with brittle dope will show successive failure—"first by cracking of the dope, and finally by breaking of the fabric."

To complicate the testing problem more, the study shows that the combination of plastic and textile in doped fabric does not permit a simple addition of the values of the properties of the separate materials.

Dope and fabric act together to give the skin its required service strength. One of the main reasons for doping is to put a protective seal over the cloth, but the dope also serves to tauten and strengthen the surface.

• Difficulties associated with a field test stem from these facts:

• 1. Temperature and humidity conditions affecting fabric strength are not controlled.

• 2. The test may not be performed in a way to produce the most accurate results of which the tester is capable.

When two or more field tests on the same fabric show different results, here are some of the things which may be responsible:

Even a simple testing device calls for a specified testing technique. In the Washington offices of the CAA, there is a tension-type field tester which requires that a sample be cut from the plane, stripped of dope and subjected to pull. Results will be erroneous, however, if the material is not cut to the correct width and properly secured in the tester's grip. Also results of this test will be affected by the slightest residue of dope on the sample. CAA staff members in Washington say samples have been known to test 20 pounds greater than they would have had the fabric been properly stripped. This is the kind of error which can easily occur in the field.

Such a sample might have been subjected to a punch test and failed. Yet it would appear to have passed the pull test because the dope residue did in fact cause a false reading.

Another reason for inconsistent test results is that aircraft covering can vary in strength over its surface. Deteriorated and good cloth often exist side by side. Weakness may be caused by flaws or cracks in the dope where moisture has entered, or by greater exposure to sunshine. Differences in colored pigment may also permit one area

to deteriorate more rapidly than a section a few inches away, CAA experts say. Even cleaning products can be harmful to the dope and set up weak spots.

Some weaknesses can stem directly from the original fabric job.

"I used to know an airport operator," a mechanic told us recently, "who would keep three or four planes in back of the hangar for repairs. During the summer months he'd recover them, then bring them into the hangar to dope and finish during the slack winter season.

"In the meantime, airport dust would fall on the wings. Sure, he'd brush it off before starting to apply dope, but by this time the dust had worked its way into the threads of the cloth. Eventually, it would cause the fabric to deteriorate sooner than it should have.

"And if you think the job didn't look good when he finished? Of course, it did. He worked hard and it was taut as an apple skin when he got through. The trouble wouldn't show up at once, but the cover wouldn't last."

Application of dope is time-consuming. Here again, in a fabric covering job, atmospheric conditions and the temperature of materials should be right. You must avoid letting too much time lapse between the successive stages: — (1) application of fabric, (2) clear dope and (3) outer coats. You just can't go "whoosh" with a spray gun. Coats should be brushed on and sanded in between.

One of the most popular field testers is the Seyboth tester which shows the amount of resistance a doped fabric section exerts against a metal puncher. As the punch enters the fabric, resistance of the threads causes a piston in the tester to be pushed up. The distance the piston is exposed increases with the fabric strength.

One advantage of this type of tester is that if the fabric is good, only a tiny hole made in the test process must be patched, and damage to the skin is minimal. This tester will usually test good fabric correctly, but results with marginal cloth may be questionable. Distributors of the Seyboth tester say that although this is the most accurate field tester in use, any field tester has several limitations; consequently, tests made by any field tester cannot be considered entirely accurate. If a test is too borderline, a piece of the fabric should be sent to laboratories qualified to test fabric accurately. They note also that the Seyboth tester is designed to test seasoned doped fabric only.

The United States Testing Laboratories caution, however, that a plunger-type tester "will give widely varying results dependent on the thickness of the dope (number of coats). The adhesion of the dope to the base fabric, together with the flexibility or brittleness of the dope, also will affect data obtained by using the punch-type tester."

Several years ago, the CAA Technical Development and Evaluation Center worked on development of a field tester of the impact type. This device con-