



Internal Revenue Service

DEPARTMENT OF THE TREASURY

LB&I Concept Unit

Unit Name	Allocation Methods of Personal Use of Aircraft	
Primary UIL Code	274.15-00	Aircraft Personal Use Allocation Method

Library Level	Title
Knowledge Base	Corporate/Business Issues & Credits
Shelf	Deductible and Capital Expenditures
Book	Aircraft and Other Listed Property
Chapter	Personal Use

Document Control Number (DCN)	COR-C-031
Date of Last Update	06/21/21

Note: This document is not an official pronouncement of law, and cannot be used, cited or relied upon as such. Further, this document may not contain a comprehensive discussion of all pertinent issues or law or the IRS's interpretation of current law.

Table of Contents

(View this PowerPoint in “Presentation View” to click on the links below)

[General Overview](#)

[Detailed Explanation of the Concept](#)

[Examples of the Concept](#)

[Index of Referenced Resources](#)

[Training and Additional Resources](#)

[Glossary of Terms and Acronyms](#)

[Index of Related Practice Units](#)

General Overview

Allocation Methods for Personal Use of Aircraft

Taxpayers who use their own aircraft for both business and personal flights must allocate expenses to each category. Personal flight expenses are further allocated between personal entertainment flights and personal non-entertainment flights but making that determination is beyond the scope of this Concept Unit.

Treas. Reg. 1.274-10(e) provides four permissible allocation methods. For clarity, they are presented as four separate methods here. With any of these methods, a taxpayer must use the same method for all aircraft for the entire tax year, but a taxpayer can change to one of the other authorized methods in a subsequent year. Taxpayer may aggregate similar cost profile aircraft in these calculations. Similar cost profile aircraft per T.R. 1.274-10(d)(4)(ii) are aircraft that have comparable flight operating costs per mile or per hour.

The four permissible allocation methods are:

- Occupied Seat Methods
 - Hours
 - Miles
- Flight-by-Flight Methods
 - Hours
 - Miles

General Overview (cont'd)

Allocation Methods for Personal Use of Aircraft

Treas. Reg. 1.274-10 provides the permissible methods for the allocation of personal use.

Occupied Seat Methods

- Hours: Number of hours flown by the individual multiplied by the “cost per occupied seat hour”**
- Miles: Number of miles flown by the individual multiplied by the “cost per occupied seat mile”**

Flight-by-Flight Methods

- Hours: Allocate expenses per hour to an individual flight and then to a specified individual traveling for entertainment purposes on that flight**
- Miles: Allocate expenses per mile to an individual flight and then to a specified individual traveling for entertainment purposes on that flight**

**See the “Formulas” slides in the Detailed Explanation of the Concept section of this Practice Unit for how each component is computed.

Detailed Explanation of the Concept

Allocation Methods for Personal Use of Aircraft

This section covers key factors, including information and items needed, and the formulas for the four allocation methods.

Analysis	Resources
<p><u>Key Factors - Items Needed for Exam</u></p> <p>These items are needed to complete the business versus personal use calculation:</p> <ul style="list-style-type: none">▪ Complete flight records including:<ul style="list-style-type: none">– Date, departure and landing destinations, trip hours and miles flown– IRC Section 274(d) substantiation for all flight legs– Passenger manifest for every flight leg– The business purpose, if any, of each passenger on each flight leg▪ List of “specified individuals” of the company as defined in Treas. Reg. 1.274-9▪ List of amounts that are treated as compensation to employees and “specified individuals” who are not employees, for example a CEO or business owner▪ All direct and indirect aircraft expenses deducted on the tax return for the year under exam▪ The method the taxpayer used to calculate business versus personal flight usage	<ul style="list-style-type: none">▪ Treas. Reg. 1.274-9▪ Treas. Reg. 1.274-10▪ Treas. Reg. 1.274-9(b)▪ IRC 274(d)

Detailed Explanation of the Concept (cont'd)

Allocation Methods for Personal Use of Aircraft	
Analysis	Resources
<p><u>Key Factors - Expenses</u></p> <p>To determine the personal use under Treas. Reg. 1.274-10, identify all the direct and indirect aircraft costs deducted on the tax return. Examples of these expenses include aircraft depreciation, pilot wages, interest, insurance and hangar fees. The expense total is the same regardless of which allocation method the taxpayer chooses.</p>	<ul style="list-style-type: none">▪ Treas. Reg. 1.274-10

Detailed Explanation of the Concept (cont'd)

Allocation Methods for Personal Use of Aircraft	
Analysis	Resources
<p><u>Key Factors - Formulas</u></p> <p>The four methods are illustrated in the Examples of the Concept section. Here are the formulas used in the illustrations.</p> <p><u>Occupied Seat Hours (OSH)</u></p> <ul style="list-style-type: none">▪ OSH equals the number of hours for the flight multiplied by the number of seats occupied on that flight**▪ Flight cost per OSH equals total aircraft expenses for the year divided by the total number of OSH for the year▪ The Flight Cost allocated to a flight for personal use, for each passenger (occupied seat), equals the hours for that flight multiplied by the Cost Per OSH <p>**The Regulations refer to flights, but records should be maintained for each <i>leg of each flight</i>. For example, look at a trip that has two legs – Columbus to Chicago and Chicago to Denver. The leg from Columbus to Chicago may be to drop off passengers for a concert (personal) while the leg from Chicago to Denver may be a business leg.</p>	<ul style="list-style-type: none">▪ Treas. Reg. 1.274-10(e)(2)

Detailed Explanation of the Concept (cont'd)

Allocation Methods for Personal Use of Aircraft	
Analysis	Resources
<p><u>Key Factors – Formulas (cont'd)</u></p> <p><u>Occupied Seat Miles (OSM)</u></p> <ul style="list-style-type: none">▪ OSM equals the number of miles flown for the flight multiplied by the number of seats occupied on that flight**.▪ Cost Per OSM equals total aircraft expenses for the year divided by the total number of OSM for the year▪ The Flight Cost allocated to a flight for personal use, for each passenger (occupied seat), equals the miles for that flight multiplied by the Cost Per OSM <p>**The Regulations refer to flights, but records should be maintained for each <i>leg of each flight</i>.</p>	<ul style="list-style-type: none">▪ Treas. Reg. 1.274-10(e)(2)

Detailed Explanation of the Concept (cont'd)

Allocation Methods for Personal Use of Aircraft	
Analysis	Resources
<p><u>Key Factors – Formulas (cont'd)</u></p> <p><u>Flight-by-Flight Hours</u></p> <ul style="list-style-type: none"> ▪ Cost Per Flight** Hour equals Total Aircraft Expenses for the year divided by Total Flight Hours for the year ▪ Cost of Flight equals Cost per Flight Hour multiplied by the number of hours for that flight ▪ Flight Cost Per Passenger equals Cost of Flight divided by the number of passengers <p>**The Regulations refer to flights, but records should be maintained for each <i>leg of each flight</i>.</p>	<ul style="list-style-type: none"> ▪ Treas. Reg. 1.274-10(e)(3)

Detailed Explanation of the Concept (cont'd)

Allocation Methods for Personal Use of Aircraft	
Analysis	Resources
<p><u>Key Factors – Formulas (cont'd)</u></p> <p><u>Flight-by-Flight Miles</u></p> <ul style="list-style-type: none"> ▪ Cost Per Flight** Mile equals Total Aircraft Expenses for the year divided by Total Flight Miles for the year ▪ Cost of Flight equals Cost per Flight Mile multiplied by the number of miles for that flight ▪ Flight Cost Per Passenger equals Cost of Flight divided by the number of passengers <p>**The Regulations refer to flights, but records should be maintained for each <i>leg of each flight</i>.</p>	<ul style="list-style-type: none"> ▪ Treas. Reg. 1.274-10(e)(3)

Examples of the Concept

Allocation Methods for Personal Use of Aircraft

Examples

Facts

Below is a sample spreadsheet detailing what information you need to start your examination.

Date	Departure City	Arrival City	Hours	Miles	Total PAX	Explanation
2/5/2015	ORD	JFK	3	737	2	Business meeting of taxpayer, spouse was a guest
2/6/2015	JFK	ORD	3	737	2	Return flight from meeting with spouse
4/20/2015	ORD	RDU	5	645	6	Flight leased to unrelated party
4/24/2015	RDU	ORD	5	645	6	Flight leased to unrelated party
5/22/2015	ORD	APF	8	1,150	4	Personal flight of shareholder
5/22/2015	APF	ORD	8	1,150	0	Deadhead flight
6/1/2015	ORD	STL	2	258	7	Business meeting of the taxpayer
6/4/2015	STL	APF	1	1,000	2	Flight leased to Shareholder
TOTALS			35	6,322	29	

Examples of the Concept (cont'd)

Allocation Methods for Personal Use of Aircraft

Examples

Key Factors - Expenses

Here are the expenses for this example to illustrate the four allocation methods. These expenses could be for a single aircraft. If the taxpayer elected aggregation, then the expenses are the total aggregated expenses for like kind aircraft.

Expense Category	Amount
Fuel & Oil	\$ 54,859
Maintenance	\$ 21,484
Insurance	\$ 20,213
Pilot Wages	\$ 22,675
Depreciation	\$250,000
Professional Fees	\$ 2,735
Other Expenses	\$ 2,631
Interest	\$ 647
Hangar Fees	\$ 20,000
Total Expenses	\$395,244

Examples of the Concept (cont'd)

Allocation Methods for Personal Use of Aircraft

Examples

Occupied Seat Hours Method

Step One: Calculate Occupied Seat Hours (OSH)

Date	Departure City	Arrival City	Hours	Total PAX	Occupied Seat Hours*	Explanation
2/5/2015	ORD	JFK	3	2	6	Business meeting of taxpayer, spouse was a guest
2/6/2015	JFK	ORD	3	2	6	Return flight from meeting with spouse
4/20/2015	ORD	RDU	5	6	30	Flight leased to unrelated party
4/24/2015	RDU	ORD	5	6	30	Flight leased to unrelated party
5/22/2015	ORD	APF	8	4	32	Personal flight of shareholder
5/22/2015	APF	ORD	8	0	32	Personal - Deadhead flight**
6/1/2015	ORD	STL	2	7	14	Business meeting of the taxpayer
6/4/2015	STL	APF	1	2	2	Flight leased to Shareholder
TOTALS			35		152	

*Occupied seat hours equals flight hours multiplied by total passengers for that flight.

**A deadhead flight takes on the character of the flight it is associated with on the flight log. For the OSH calculations, the deadhead flight leg is presumed to contain the same number of passengers as the flight leg it is associated with.

Examples of the Concept (cont'd)

Allocation Methods for Personal Use of Aircraft

Examples

Occupied Seat Hours Method (cont'd)

Step Two: Calculate Personal Versus Business Hours

Date	Departure City	Arrival City	Total Hours	PAX	Occ. Seat Hours	Personal Hours	Business Hours	Explanation
2/5/2015	ORD	JFK	3	2	6	3	3	1 Business - 1 Personal
2/6/2015	JFK	ORD	3	2	6	3	3	1 Business - 1 Personal
4/20/2015	ORD	RDU	5	6	30		30	Business
4/24/2015	RDU	ORD	5	6	30		30	Business
5/22/2015	ORD	APF	8	4	32	32		Personal
5/22/2015	APF	ORD	8	0	32	32		Personal (Deadhead)
6/1/2015	ORD	STL	2	7	14		14	Business
6/4/2015	STL	APF	1	2	2		2	Business
TOTALS			35	29	152	70	82	

Examples of the Concept (cont'd)

Allocation Methods for Personal Use of Aircraft

Examples

Occupied Seat Hours Method (cont'd)

Step Three: Calculate Costs Per Hour and Allocate to Personal Versus Business Usage

Date	Hours	Total PAX	Seat Hours	*Cost Per Hour	Business Costs	Personal Costs	Explanation
2/5/2015	3	2	6	\$2,600	\$ 7,800	\$ 7,800	1 Business - 1 Personal
2/6/2015	3	2	6	\$2,600	\$ 7,800	\$ 7,800	1 Business - 1 Personal
4/20/2015	5	6	30	\$2,600	\$ 78,000		Business
4/24/2015	5	6	30	\$2,600	\$ 78,000		Business
5/22/2015	8	4	32	\$2,600		\$ 83,200	Personal
5/22/2015	8	0	32	\$2,600		\$ 83,200	Personal (Deadhead)
6/1/2015	2	7	14	\$2,600	\$ 36,400		Business
6/4/2015	1	2	2	\$2,600	\$ 5,200		Business
TOTALS	35	29	152		\$213,200	\$182,000**	

*Total aircraft expenses for the year divided by OSH for the year equals Cost per Hour

So, in this example, \$395,244 (total aircraft expenses for the year) divided by 152 (total occupied seat hours flown for the year) equals \$2,600 cost per seat hour

** Numbers were rounded for this example

Note: Departure city and Arrival City removed for presentation purposes only on this slide, these items are still relevant for analysis.

Examples of the Concept (cont'd)

Allocation Methods for Personal Use of Aircraft

Examples

Occupied Seat Miles Method

Step One: Calculate Occupied Seat Miles (OSM)

<u>Date</u>	<u>Departure City</u>	<u>Arrival City</u>	<u>Miles</u>	<u>Total PAX</u>	<u>Occupied Seat Miles*</u>	<u>Explanation</u>
2/5/2015	ORD	JFK	737	2	1,474	Business meeting of Taxpayer, spouse was a guest
2/6/2015	JFK	ORD	737	2	1,474	Return flight from meeting with spouse
4/20/2015	ORD	RDU	645	6	3,870	Flight leased to unrelated party
4/24/2015	RDU	ORD	645	6	3,870	Flight leased to unrelated party
5/22/2015	ORD	APF	1,150	4	4,600	Personal flight of Shareholder
5/22/2015	APF	ORD	1,150	0	4,600	Personal - Deadhead flight**
6/1/2015	ORD	STL	258	7	1,806	Business meeting of Taxpayer
6/4/2015	STL	APF	1,000	2	2,000	Flight leased to Shareholder
TOTALS			6,322		23,694	

*Occupied seat miles equals flight miles multiplied by the total passengers for that flight.

**A deadhead flight takes on the character of the flight it is associated with on the flight log. For the OSM calculations, the empty deadhead flight is presumed to contain the same number of passengers as the flight it is associated with.

Examples of the Concept (cont'd)

Allocation Methods for Personal Use of Aircraft

Examples

Occupied Seat Miles Method (cont'd)

Step Two: Calculate Personal Versus Business Miles

Date	Departure City	Arrival City	PAX	Occupied Seat Miles	Personal Miles	Business Miles	Explanation
2/5/2015	ORD	JFK	2	1,474	737	737	1 Business -1 Personal
2/6/2015	JFK	ORD	2	1,474	737	737	1 Business -1 Personal
4/20/2015	ORD	RDU	6	3,870		3,870	Business
4/24/2015	RDU	ORD	6	3,870		3,870	Business
5/22/2015	ORD	APF	4	4,600	4,600		Personal
5/22/2015	APF	ORD	0	4,600	4,600		Personal (Deadhead)
6/1/2015	ORD	STL	7	1,806		1,806	Business
6/4/2015	STL	APF	2	2,000		2,000	Business
TOTALS			29	23,694	10,674	13,020	

Examples of the Concept (cont'd)

Allocation Methods for Personal Use of Aircraft

Examples

Occupied Seat Miles Method (cont'd)

Step Three: Calculate Costs Per Mile and Allocate to Personal Versus Business Usage

Date	Miles	Total PAX	Occupied Seat Miles	Cost per Flight Mile*	Business Costs	Personal Costs	Explanation
2/5/2015	737	2	1,474	\$16.68	\$12,293	\$12,293	1 Business -1 Personal
2/6/2015	737	2	1,474	\$16.68	\$12,293	\$12,293	1 Business -1 Personal
4/20/2015	645	6	3,870	\$16.68	\$64,552		Business
4/24/2015	645	6	3,870	\$16.68	\$64,552		Business
5/22/2015	1,150	4	4,600	\$16.68		\$76,728	Personal
5/22/2015	1,150	0	4,600	\$16.68		\$76,728	Personal (Deadhead)
6/1/2015	258	7	1,806	\$16.68	\$30,124		Business
6/4/2015	1,000	2	2,000	\$16.68	\$33,360		Business
TOTALS	6,322	29	23,694		\$217,174*	\$178,042*	

Total aircraft expenses for the year divided by OSM for the year equals Cost per Mile. So, in this example, \$395,244 (total aircraft expenses for the year) divided by 23,694 (total occupied seat miles flown for the year) equals \$16.68 cost per flight mile

* Numbers were rounded for this example

Note: Departure city and arrival city removed for presentation purposes only on this slide, these items are still relevant for analysis.

Examples of the Concept (cont'd)

Allocation Methods for Personal Use of Aircraft

Examples

Occupied Seat vs. Flight-by-Flight

The two examples in the previous slides show the personal use allocation using the Occupied Seat Method. The Occupied Seat Method calculates the hours or miles of a flight leg and multiplied it by the number of passengers. That sum-total was then allocated between business cost or personal cost after determining the respective purpose of each passenger (i.e.: business or personal).

The two examples in the next slides show the personal use allocation using the Flight-by-Flight Method. In this method you take the total flight leg hours or miles and divide by the number of passengers. Those hours or miles per passenger then get allocated based on the reason the passenger is on board the flight.

The Flight-by-Flight allocation examples use the same flight log and facts that are used in the Occupied Seat Method (slides 11-12).

Examples of the Concept (cont'd)

Allocation Methods for Personal Use of Aircraft

Examples

Flight-by-Flight Hours Method

Date	Hrs.	PAX	Cost Per Hour*	Cost Per Flight	Cost Per Pax	Business Costs	Personal Costs	Explanation
2/5/2015	3	2	\$11,293	\$33,880	\$16,940	\$16,940	\$16,940	1 Business- 1 Personal
2/6/2015	3	2	\$11,293	\$33,880	\$16,940	\$16,940	\$16,940	1 Business -1 Personal
4/20/2015	5	6	\$11,293	\$56,460	\$ 9,410	\$56,460		Business
4/24/2015	5	6	\$11,293	\$56,460	\$ 9,410	\$56,460		Business
5/22/2015	8	4	\$11,293	\$90,343	\$22,586		\$90,343	Personal
5/22/2015	8	0	\$11,293	\$90,343			\$90,343	Personal (Deadhead)
6/1/2015	2	7	\$11,293	\$22,585	\$ 3,226	\$22,585		Business
6/4/2015	1	2	\$11,293	\$11,293	\$ 5,647	\$11,293		Business
TOTALS	35	29		\$395,244		\$180,678	\$214,564	

*Cost per flight hour equals total aircraft expenses for the year divided by total flight hours (\$395,244/35=\$11,293)

**Cost per flight equals cost per flight hour multiplied by the number of hours for that flight

***Cost per passenger equals cost of flight divided by number of passengers

Numbers were rounded for this example

Note: Departure City and Arrival City removed for presentation purposes only on this slide, these items are still relevant for analysis.

Examples of the Concept (cont'd)

Allocation Methods for Personal Use of Aircraft

Examples

Flight-by-Flight Miles Method

Date	Miles	PAX	Flight Cost Per Mile*	Cost Per Flight**	Business Cost	Personal Cost	Explanation
2/5/2015	737	2	\$62.52	\$46,077	\$23,039	\$23,039	1 Business -1 Personal
2/6/2015	737	2	\$62.52	\$46,077	\$23,039	\$23,039	1 Business -1 Personal
4/20/2015	645	6	\$62.52	\$40,324	\$40,324		Business
4/24/2015	645	6	\$62.52	\$40,324	\$40,324		Business
5/22/2015	1,150	4	\$62.52	\$71,897		\$71,897	Personal
5/22/2015	1,150	0	\$62.52	\$71,897		\$71,897	Deadhead
6/1/2015	258	7	\$62.52	\$16,128	\$16,128		Business
6/4/2015	1,000	2	\$62.52	\$62,519	\$62,519		Business
TOTALS	6,322	29		\$395,244	\$205,373	\$189,871	

*Cost per flight mile equals total aircraft expenses for the year divided by total flight miles (\$395,244/6322=\$62.52)

**Cost per flight equals cost per flight mile times number of miles for the flight

***Cost per passenger equals cost of flight divided by number of passengers

Numbers were rounded for this example

Note: Departure City and Arrival City removed for presentation purposes only on this slide, these items are still relevant for analysis.

Examples of the Concept (cont'd)

Allocation Methods for Personal Use of Aircraft

Examples

Comparison of the Results of Each Method

	Occupied Seat Hour	Occupied Seat Miles	Flight by Flight Hours	Flight by Flight Miles
Cost of Personal flights	\$182,000	\$178,042	\$214,564	\$189,871
Cost of Business flights	\$213,200	\$217,174	\$180,678	\$205,373
Total**	\$395,200	\$395,216	\$395,242	\$395,244

**Sum of cost of personal flight costs and cost of business flights differs slightly from total costs in example (\$394,244) due to rounding.

Index of Referenced Resources

Allocation Methods for Personal Use of Aircraft

IRC 274(d)

Treas. Reg. 1.274-9

Treas. Reg. 1.274-10

Training and Additional Resources

Allocation Methods for Personal Use of Aircraft

Type of Resource	Description(s)
Reference Materials	<ul style="list-style-type: none"><li data-bbox="658 347 1452 382">▪ Audit Tool - Business Aircraft and Aviation Terminology<li data-bbox="658 389 1369 425">▪ Audit Tool - Overview of Business Aircraft Issues

Glossary of Terms and Acronyms

Term/Acronym	Definition
APF	Airport Code for Naples Airport
Deadhead Flight	A flight or route with no cargo or passengers
JFK	Airport Code for John F. Kennedy International Airport
Leg	A single direction of travel between two points
ORD	Airport Code for Chicago O'Hare International Airport
OSH	Occupied Seat Hours
OSM	Occupied Seat Miles
PAX	Passengers
RDU	Airport Code for Raleigh-Durham International Airport
Specified Individuals	Defined in Treas. Reg. 1.274-9
STL	Airport Code for Lambert-St. Louis International Airport

Index of Related Practice Units

Associated UIL(s)	Related Practice Unit
	None at this time.