

CFAC Forum 2019

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AVIATION-LOWW

BEWERTUNG von LUFTFAHRZEUGEN insbesondere nach **SCHADENSFÄLLEN**



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THEMENBEREICHE

GRUNDLAGEN (Rechtliches, Person des SV, Wertbegriff, Methoden)

WERTBESTIMMENDE FAKTOREN (Interne, Externe)

WERTMINDERUNG durch SCHADEN

BEISPIELE



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GRUNDSÄTZLICHE FRAGEN

GIBT ES VORSCHRIFTEN?

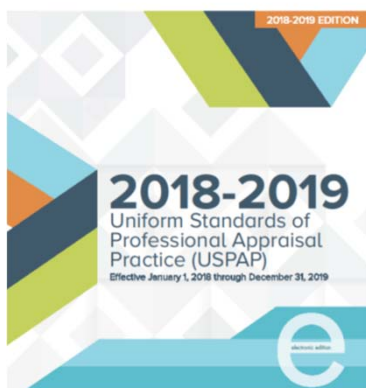
WER BEWERTET?

NACH WELCHEN METHODEN?



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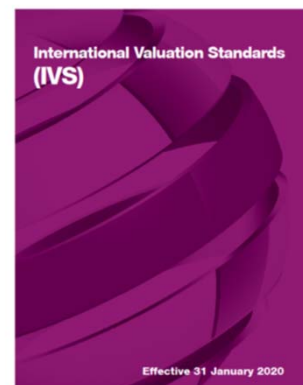
2 STANDARDS



PLUS
Guidance from the Appraisal Standards Board
+ USPAP ADVISORY OPINIONS
+ USPAP FREQUENTLY ASKED QUESTIONS (FAQ)

APPRAISAL STANDARDS BOARD
THE APPRAISAL FOUNDATION
Endorsed by Congress as the Source of Appraisal
Standards and Appraiser Qualifications

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IVSC International Valuation Standards Council



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Sponsoren



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WANN GELTEN IVS

Standesregeln, die für den SV gelten (zB ASA)

Vereinbarung mit SV

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WER BEWERTET

Techniker / Mechaniker

Pilot

Kaufmann

Interner SV

Unabhängiger Externer SV

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ANFORDERUNGEN an den SV nach IVS 1

30. Valuer

30.1. Valuer has been defined as “an individual, group of individuals, or a firm possessing the necessary qualifications, ability and experience to undertake a valuation in an **objective, unbiased** and **competent** manner. In some jurisdictions, licensing is required before one can act as a valuer.



ANFORDERUNGEN an den SV nach IVS 2

40. Objectivity

40.1. The process of valuation requires the valuer to make **impartial judgements** as to the reliability of inputs and assumptions. For a valuation to be credible, it is important that those judgements are made in a way that promotes transparency and **minimises the influence of any subjective factors on the process**. Judgement used in a valuation must be applied objectively to avoid biased analyses, opinions and conclusions.



ANFORDERUNGEN an den SV nach IVS 3

50. Competence

50.1. Valuations must be prepared by an individual or firm having the appropriate technical skills, **experience and knowledge** of the subject of the valuation, **the market(s) in which it trades** and the **purpose of the valuation**.



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ACCREDITATION is KEY

- VdL (Verband der Luftfahrtsachverständigen in DEU)
- ISO/IEC 17024 (2 Zertifizierungsstellen in DEU)
- Gerichts-SV (IHKs in DEU, OLGs in AUT)
- ASA (American Society of Appraisers)
- ISTAT (International Society of Transport Aircraft Trading)
- [NAAA » PAAO] ???



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BEWERTUNG

Opinion of Value = URTEIL des SV

On a Specific Date = zu einem STICHTAG

Under Specific Conditions = zu den angenommenen Bedingungen



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ÜBLICHE WERTBEGRIFFE

Market Value (IVS 104-30)

Liquidation Value (IVS 104-80)

Salvage / Scrap Value (ASA)

Insurance Replacement Cost (ASA)

Book Value (ASA – IFRS)



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MARKTWERT 1

IVS 104 Bases of Value

30. IVS-Defined Basis of Value – Market Value

30.1. Market Value is the estimated amount for which an asset or liability should exchange on the valuation date between **a willing buyer and a willing seller in an arm's length transaction, after proper marketing and where the parties had each acted knowledgeably, prudently and without compulsion.**



MARKTWERT 2

IVS 104 Bases of Value

100. Other Basis of Value – Fair Market Value (Organisation for Economic Co-operation and Development (OECD))

100.1. The OECD defines Fair Market Value as the price **a willing buyer would pay a willing seller in a transaction on the open market.**



MARKTWERT 3

USPAP Definition Section

MARKET VALUE:

a type of value, stated as an opinion, that presumes the **transfer of a property** (i.e., a right of ownership or a bundle of such rights), as of a certain date, **under specific conditions set forth in the definition of the term identified by the appraiser** as applicable in an appraisal.

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METHODEN 1

IVS 105 Valuation Approaches and Methods

Market Approach = Vergleichswertverfahren (USPAP: Sales Comparison)

Income Approach = Ertragswertverfahren

Cost Approach = Kostenvergleichsverfahren

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METHODEN 2

Wer bestimmt die anzuwendende Methode??

DER SACHVERSTÄNDIGE

IVS 105-10.3: The goal is to find the most appropriate method under the particular circumstances.



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EXKURS: MARKTÜBERSICHTEN

MARKTÜBERSICHTEN sind ein WERKZEUG und KEIN EVANGELIUM



VREF is The Better Value

More Than 5,000 Subscribers and Growing



Aircraft Bluebook



Annual Subscription Fee	\$545	\$320	\$2,250	\$8,300
Number of Aircraft in Database	450	73	190	137
Number of Accredited Members (ASA, ISA, ISTAT)	9	1	3	5
Number of A&P On Staff	2	0	0	0
International Office Locations	•			
Full-Time Appraisal Division	•		•	
Full-Time Expert Witness Division	•			
Cloud Based Application	•			
Monthly/Annual Subscriptions	•			•
Quarterly Printed Publication	•			•
Avionics Value Database	•	•		
Optional Equipment Value Database	•	•		
Engine Only Value Database	•			•
Experimental Aircraft	•			
Light Sport Aircraft	•	•		
Business Aircraft	•	•		
Regional Transport Aircraft	•			•
Helicopters	•	•	•	
Residual Values Historic and Future	•		•	•
Analytics	•			
Charting	•			
24/7/365 Support Staff	•			

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EXKURS: MARKTÜBERSICHTEN

- Historische Daten (vergangenes Quartal)
- Durchschnittliches Flugzeug
- Durch den SV zu beurteilen bleiben (IVS 105-30):
 - Aktuelle Marktverhältnisse
 - Trading Range (Wartung, Dokumentation)
 - HCMs (ja / nein / pro rated)
 - Damage History
 - Vorlieben am Markt

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WERTBESTIMMENDE FAKTOREN 1

- Chronologisches Alter
- Operationelles Alter (Stunden/Cycles)
- Funktionale Obsoleszenz
- Ökonomische Obsoleszenz



WRITTEN OFF



Jets

- 1121 Jet Commander
- Hawker 1A/1B/3ARA/3A-731
- Hawker 3B/3BRA/400B/600A/B
- B727-200
- Learjet 23
- Learjet 24/A/B
- Learjet 25
- Falcon 20S/E/F
- Fokker F28-1000
- Jetstar -8/731
- Lockheed L1011-500
- Diamond I
- Sabreliner 40

Turbo-Props

- Starship 2000-A
- Gulfstream G1
- Hawker-Siddeley HS748-2A
- Merlin IIA
- Mitsubishi MU-2B/2F/2G/2J

And the list gets longer and longer.....





WERTBESTIMMENDE FAKTOREN 2

- Wartungshistorie
- Technischer Zustand (Korrosion!)
- Vorschäden
- Marktvorlieben (Mode?)

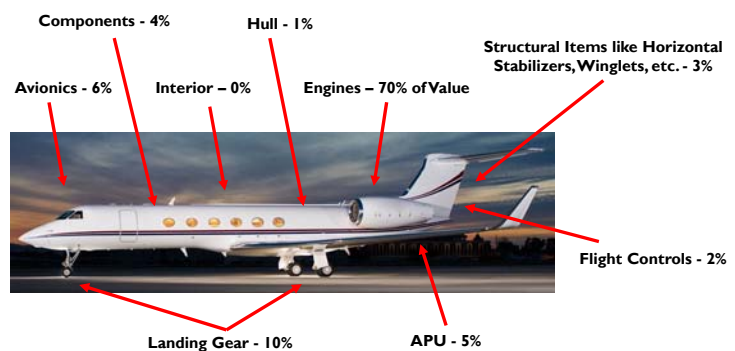


GULFSTREAM GV BREAK- DOWN OF WHERE THE VALUE IS AT

- **New Price \$38,300,000**
 - \$23.0M is Labor Cost
 - \$7.6M is Materials Cost
 - \$7.6M is Profit Contribution
- When a new aircraft rolls off the factory floor, prior to sale, and delivery, the New Sales Price can be dissected as follows:
 - 60% is Labor Cost
 - 20% Materials Cost
 - 20% Profit Contribution



GULFSTREAM GV BREAK- DOWN OF WHERE THE VALUE IS AT



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MERKANTILER MINDERWERT 1

- KEINE technische Frage
- Subjektive Ansicht der Marktteilnehmer (Market Perception)
- Unterliegt Veränderungen
- Gewisse Grundsätze feststellbar
- Untersuchung Embry-Riddle Aeronautical University 2001

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MERKANTILER MINDERWERT 2

- Zeitverlauf seit Schaden
(5.6 Jahre „magische Grenze“)
- Umstände der Beschädigung
(im Flug, in Bewegung am Boden, geparkt)
- Schwere des Schadens
(Major/ Minor)



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MERKANTILER MINDERWERT 3

- Reparatur (durch wen? OEM oder field repair)
- Austausch von Teilen (neu oder überholt/gebraucht)
- Allgemeiner Zustand des Luftfahrzeugs (Korrosion!!)
- Verwendung des Luftfahrzeugs (Arbeitstier oder Luxuspfard)
- Markt zum Zeitpunkt des Verkaufs (Buyer's/Seller's Market)



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ES GIBT KEINE MAGISCHE FORMEL für den MERKANTILEN MINDERWERT

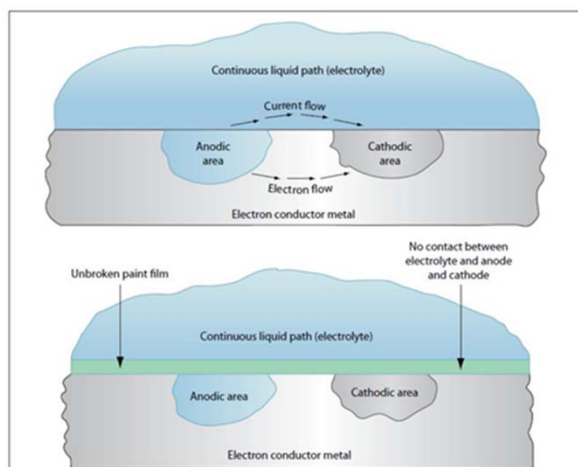
IMMER Einschätzung durch SV

STICHTAGSBEZOGEN



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KORROSION 1





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KORROSION 2



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G 200 YOM 2008 TTAF 4000hrs

- Parked a/c hit on the ramp by other a/c moved in high winds (not properly secured)
- Repair by OEM approved MRO – new Winglet
- Labour n/a
- Parts n/a

- **Sold 1 yr after repair:**
- 0 %





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HA-420 YOM 2018 TTAF 80hrs



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HA-420 YOM 2018 TTAF 80hrs

- Runway excursion
- Exchange new parts
- Labour USD 62.000,--
- Parts USD 620.000,--
- **Valuation after repair:**
- 10 %





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F2000 YOM 2014 TTAF 2900hrs



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F2000 YOM 2014 TTAF 2900hrs

- Parked a/c moved by high winds in TS, hit PC 12 on ramp
- Repair by OEM in factory incl. new flap assembly
- Labour EUR 250.000,--
- Parts EUR 650.000,--
- **Sale in year of repair:**
- 0 %





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ZUSAMMENFASSUNG

- Bewertung von Luftfahrzeugen ist eine kaufmännische Aufgabe, die technischen Sachverstand erfordert
- Damage History ist nur einer von vielen wertbestimmenden Faktoren
- Es gibt keine Formel für den Merkantilen Minderwert, letztlich erfolgt eine subjektive Einschätzung nach möglichst objektiven Kriterien

