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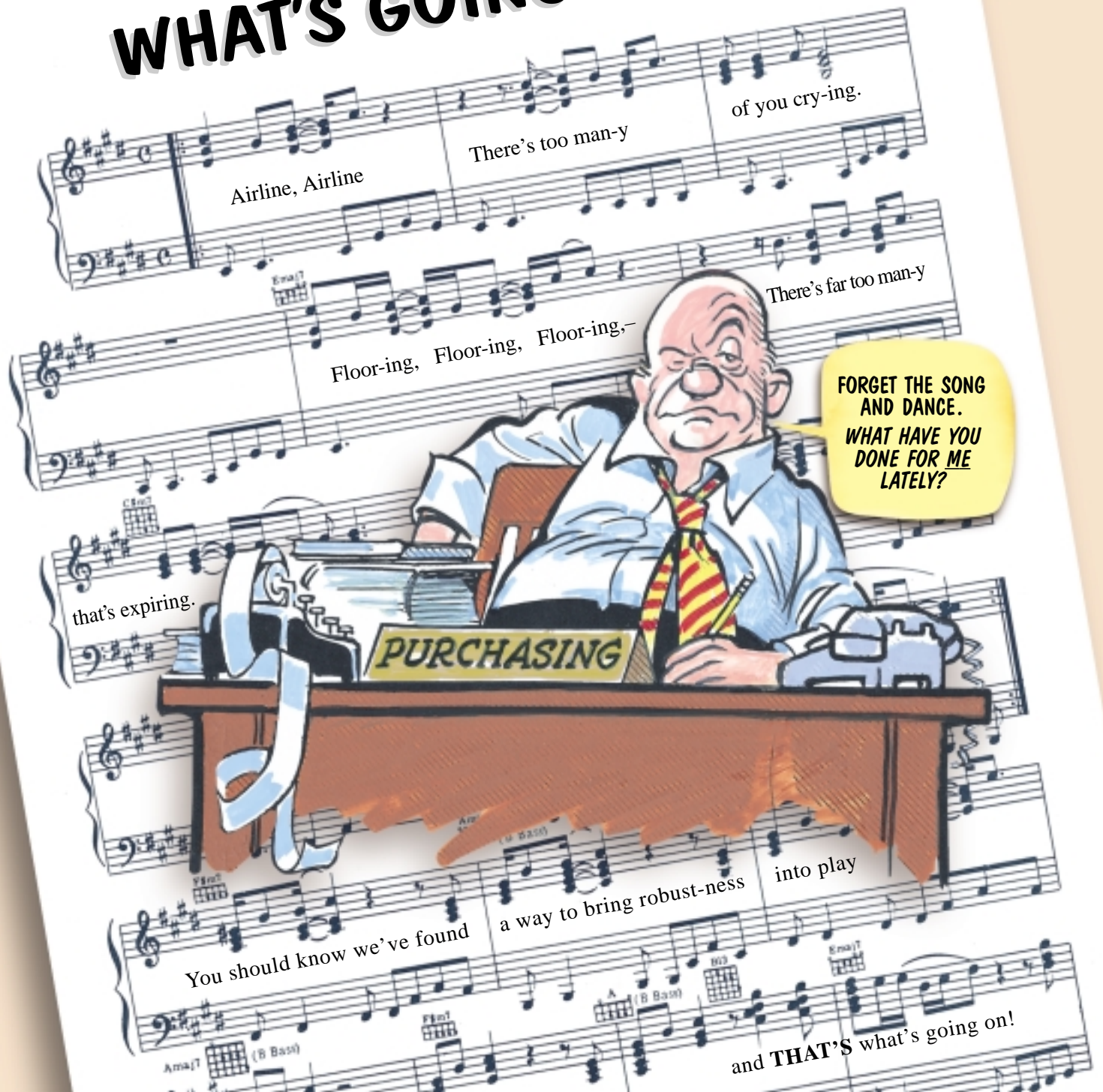
THE M.C. GILL DOORWAY

"We try hard enough to make it happen"

New area code

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WHAT'S GOING ON!!





FROM THE CHAIRMAN:

With an expenditure of much time and money we have qualified new floor panels to new Airbus Industrie specifications. With the launch of A330/A340, Airbus decided to redesign the flooring panels to make them uniform for all Airbus aircraft. This resulted in stronger, more durable flooring (for longer service life), albeit a bit heavier and more costly....*THAT'S IT!*

Despite our propensity for plain talk, we continue to grope for better ways to describe and explain. Remember, in our recently concluded sandwich panel series, we gave you the pig latin lexicon of the 90's. Continuing in that vein, we offer the following...

STRAIGHT FROM THE HORSE'S MOUTH.

As a result of and in response to a *customer driven, paradigm shift in real world conditions*—from weight saving to service life in aircraft flooring—we hereby grant you a *viable alternative* with our new *robust, bench-marking*, Airbus replacement floor panels to the recently released specifications TL53/5000/79, issue 8 (Gillfab 4405, Ty 1 and Ty 2); 5360 M1M 000500 (4123, 4223, and 4522) and 5360 M1M 000600 (4505 and 4506).

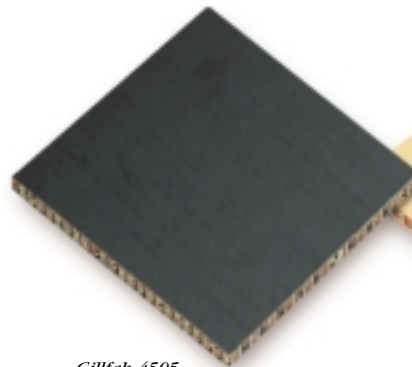
This issue of The Doorway should keep you *abreast of the times* and convince you that Gillfloor panels are a product of our's and Airbus' *continuous improvement* philosophy to *optimize cost of quality, lower true cost*, and serve properly.

It should be apparent that the *world class, zero defect driven* M.C. Gill Corporation has customer values as *virtually* the force that motivates us, and that you need look no further for your Airbus replacement panels.

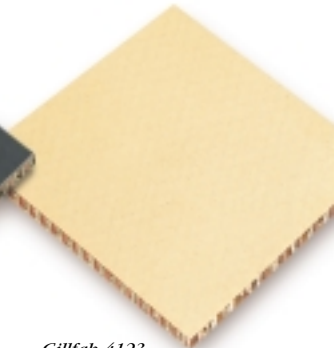
...And that's it in a nutshell...horse bite?



7N



Gillfab 4505



Gillfab 4123

Like the M.C. Gill Corporation, Daimler-Benz Aerospace Airbus (DA) is continually striving to improve its product line.



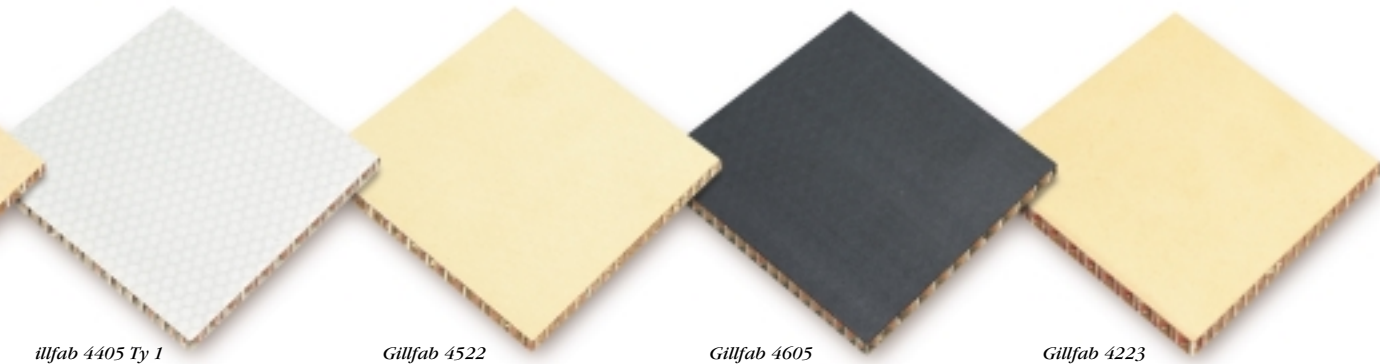
THE ONLY

In Airbus aircraft, flooring panels are primary structure components. Therefore, only approved sources should be used for those aircraft—because replacement parts must have certification through DA from the FAA and the JAA. *At this writing the M.C. Gill Corp. is the only U.S. manufacturer that has approval for all constructions and types of passenger compartment, cargo compartment, and main deck freighter replacement flooring.* It also means that materials purchased by airlines or repair stations from a non-qualified supplier can result in Airbus' rejection of warranty and/or product liability claims.

In the Winter 1994 Doorway, we explained the lengths to which our R&D Group went in preparing the documentation required by Airbus for the manufacture of the panels including:

- Traceability of the raw materials we received, and the steps we took to ensure they met Airbus' specifications;

NEW AIRBUS PANELS



Gillfab 4405 Ty 1

Gillfab 4522

Gillfab 4605

Gillfab 4223

In keeping with that goal they recently completed a redesign of the flooring panels used in the A300, A300-600, A319, A320, A321, A330,

and A340. Probably the most significant feature common to all the new panels was the dramatic increase in strength and durability.

APPROVED U.S. SUPPLIER

- Documentation of the processing steps we took to manufacture the panels; and,
- Documentation of what our Quality Assurance Department did in the testing of the products, and how they went about it.

Essentially, what Airbus had asked us to do was to create a paper trail that would provide accountability and traceability for the flooring panels. All this occurred AFTER two years of research, development, testing, preparing supporting documentation, constructing sample panels in the R&D lab, transferring that technology to our full scale production facilities, and training plant personnel to produce the panels.

Now four years later, all this was similarly reviewed by an Airbus Quality Assurance-Engineer-Procurement team. No detail was too insignificant and no process too minor for these Airbus auditors. The quality procedure used by the audit team, QSF-C, has been called the equivalent to ISO-9001, although many consider QSF-C somewhat more rigorous and less forgiving than ISO-9001.



Stephen Gill (left), M.C. Gill Corp. president and CEO, signs off on quality assurance compliance documents as Airbus' quality assurance personnel Frank Heyll (center) and Ronald Korber (right) look on.



REDESIGNED

PLUS ADDED DURABILITY

Because flooring in Airbus aircraft is structural, it must have strength, durability, and resistance to wear. These and the desire for uniformity throughout the Airbus family of aircraft were key reasons the panels were redesigned. The original panels were among the best in the industry, but Airbus engineers mandated that service life be extended. Hence, the new specifications.

Although the new panels are similar in construction to their predecessors, thicker facings (in many cases) and higher density honeycomb core, have resulted in more durable panels (see Table 1).

The new specifications called for increased property values, some to a degree that our Research and Development group wondered if they could be attained. But attained they were—and then some. The product data appearing in Table 2 on pages 6 and 7 report the typical average values attained by M.C. Gill panels. *In every single instance the typical averages exceeded the specified requirements by a comfortable margin.*



Roller cart test fixture testing a Gillfab 4605 flooring panel, carbon facings with a Nomex Honeycomb core.

JUST ONE EXAMPLE OF OUTSTANDING PERFORMANCE

The improved panel construction is typified by the roller-cart test for Gillfab 4505. The specification requirement is for 120,000 cycles with 125.7 lbs/wheel on each of three wheels and an additional 35,000 cycles with the weight per wheel increased to 165.3 lbs.

The M.C. Gill test panel passed the Airbus requirements at DA's test facility.

Then, just to see how good the panel's construction really was, and what kind of safety margin we had, we subjected it (at our El Monte facility) to an additional 120,000 cycles at a per wheel weight of 250 lbs. **THE PANEL PASSED WITH NO DAMAGE REPORTED!**

We will monitor closely the in-service performance of this and the other qualified M.C. Gill panels for Airbus so that our customers may be assured that they are getting the best possible product available. (They have every right to expect that from a company with a proven track record since 1945).

FOR ADDED STRENGTH

**TABLE 1
COMPARISON OF FLOOR PANEL CONSTRUCTIONS – ORIGINAL VS. NEW GENERATION**

Airbus A300/A310/A300-600 Aircraft			
Application	Original Panel Designation/Specification	New Generation Panel Designation/Specification	Difference Between Original and New Generation Panel Construction
Passenger Flooring	Gillfab® 4105 Ty 1 and Ty 2 TL53/5000/79, Issue 5,6	Gillfab 4405 Ty 1 and Ty 2 TL53/5000/79, Issue 8, Annex A (PC3)	Thicker top facing (0.030" vs. 0.024") Heavier density Nomex® honeycomb core (9.0 pcf vs. 6.0 pcf)
Containerized Cargo Flooring	Gillfab 4105 Ty 1 and Ty 2 TL53/5000/79, Issue 5,6	Gillfab 4522 5360 M1M 000500, Issue 5 (CCC1)	Panel designation changed to standard 5360 M1M 000500, Issue 5
Bulk Cargo Flooring	Gillfab 4323 5360 M1M 000100, Issue 6,7	Gillfab 4223 5360 M1M 000500, Issue 3 (BCC2)	Thicker top facing (0.045" vs. .030") Heavier density Nomex honeycomb core (9.0 pcf vs. 6.0 pcf)
Main Deck Cargo Flooring - Freighter Combi/Convertible	Not Applicable	Gillfab 4123 5360 M1M 000500, Issue 5 (MDC2)	Not applicable-new panel designation
Airbus A319/A320/A321/A330/A340 Aircraft			
Passenger Flooring	Gillfab 4205 5360 M1B 000100, Issue 6, 7	Gillfab 4505 (Main aisle, galley) 5360 M1M 000600, Issue 3 (PC3)	Thinner/lighter weight/stronger facings (0.020" vs. 0.025") Higher carbon fiber content Heavier density Nomex honeycomb core (9.0 pcf vs. 6.0 pcf)
Passenger Flooring	Gillfab 4205 5360 M1B 000100, Issue 6, 7	Gillfab 4605 (Seat location) 5360 M1M 000600, Issue 3 (PC1)	Thinner/lighter weight/stronger facings (0.017" vs 0.025") because of higher carbon fiber content Heavier density Nomex honeycomb core (8.0 pcf vs. 6.0 pcf)
Containerized Cargo Flooring	Gillfab 4322* 5360 M1M 000100, Issue 6, 7	Gillfab 4522 5360 M1M 000500, Issue 5 (CCC1)	Heavier density Nomex honeycomb core (8.0 pcf vs. 6.0 pcf)
Bulk Cargo Flooring	Gillfab 4323 5360 M1M 000100, Issue 6, 7	Gillfab 4223 5360 M1M 000500, Issue 3 (BCC2)	Thicker top facing (0.045" vs. 0.030") Heavier density Nomex honeycomb core (9.0 pcf vs. 6.0 pcf)
Main Deck Cargo Flooring - Freighter Combi/Convertible	Not applicable	Gillfab 4123 5360 M1M 000500, Issue 5 (MDC2)	Not applicable - new panel designation

* Applicable to A319/A320/A321 aircraft only

Note: Airbus operators should consult the relevant Airbus Industrie Structural Repair Manual (SRM) to determine specific part installation.

TABLE 2 – TYPICAL AVERAGE

Property	Test Method	Gillfab 4123		Gillfab 4223	
		Based on a panel 0.374" thick with 0.030"/0.020" phenolic facings and a 9 pcf 0.324" thick core. Specification: AI 5360 M1M 000500, Issue 5 (MDC2)		Based on a panel 0.496" thick with 0.045"/0.020" phenolic facings and a 9 pcf 0.431" thick core. Specification: AI 5360 M1M 000500, Issue 3 (BCC2)	
Weight , psf (kg/m ²)	ASTM C 29	0.789	(3.81)	0.973	(4.75)
In-plane Shear , lbs/in (N/mm)	Chapter 9.2 ¹	782	(137)	N/R	
Long Beam Flexural Strength , lbs (N)	ASTM C 393				
Ultimate Load					
Ribbon (L) Direction					
Room Temperature		504	(2242)	788	(3505)
Humidity Aged, Tested at 40°C		493	(2193)	N/R	
Transverse (W) Direction				N/R	
Room Temperature		466	(2072)		
Humidity Aged, Tested at 40°C		475	(2112)		
Long Beam Deflection	ASTM C 393				
@ 445N (100 lbs), in (mm)					
Ribbon (L) Direction					
Room Temperature		0.545	(13.84)	0.277	(7.04)
Humidity Aged, Tested at 40°C		0.527	(13.29)	N/R	
Transverse (W) Direction				N/R	
Room Temperature		0.543	(13.79)		
Humidity Aged, Tested at 40°C		0.519	(13.18)		
Hard Point Shear	Chapter 5.5 ² /9.8 ³	N/R		N/R	
Ultimate Load, lbs (N)					
Room Temperature					
Humidity Aged, Tested at 40°C					
Panel Shear	ASTM C 393			N/R	
Ultimate Load, lbs (N)					
Room Temperature		964	(4288)		
Humidity Aged, Tested at 40°C		917	(4079)		
Food Cart Roller , cycles	Chapter 9.5			N/R	
125.7 lbs/wheel (57 KG)		Pass	(No Damage)		
165.3 lbs/wheel (75 KG)		Pass	(No Damage)		
88 lbs/wheel (40 KG)		N/R			
Bending Under Static Load	Chapter 9.6			N/R	
F (Limit Corrected), lbs (N)		1512	(6727)		
F (Ultimate Corrected), lbs (N)		6230	(27713)		
Deflection @ F (Limit Corrected), in (mm)		0.657	(16.69)		
Insert Shear	Chapter 9.7			N/R	
Ultimate Load, lbs (N)					
Room Temperature		1921	(8546)		
Humidity Aged, Tested at 40°C		1762	(7842)		
Impact Strength , ft-lbs, (N-m)	Chapter 9.8 ⁴ /9.9 ⁵ ATSM D 3029	8.45	(11.46)	11.0	(15)
Indentation , lbs (N)	Chapter 9.9 ⁶ /5.4 ² /9.10 ⁷	450	(2002)	N/R	
C.D. Peel , lbs (N)	ASTM D 1781			N/R	
Room Temperature		66.5	(295.8)		
Humidity Aged, Tested at 40°C		64.6	(287.4)		
Stabilized Core Compression psi(N/mm ²)	ASTM C 365	2234	(15.4)	N/R	
Flammability	ABD 0031			N/R	
60 Second Vertical	AITM 2.0002A				
Extinguishing Time, sec		1.8			
Burn Length, in (mm)		0.5	(12.7)		
Drip Extinguishing Time, sec		0.0			
12 Second Vertical	AITM 2.0002B				
Extinguishing Time, sec		0.0			
Burn Length, in (mm)		0.2	(5.1)		
Drip Extinguishing Time, sec		0.0			
30 Second 45 Degree	AITM 2.0004				
Extinguishing Time, sec		0.5			
Afterglow, sec		0.0			
Flame Penetration		None			
Flame Penetration Resistance	FAR 25.855, App. F, Part III, Amend. 25-60				
Flame Penetration		None			
Temperature Rise, F		150			

VALUES (METRIC) OF AIRBUS PANELS

Gillfab 4405 Ty 1		Gillfab 4405 Ty 2		Gillfab 4505		Gillfab 4522		Gillfab 4605	
Based on a panel 0.374" thick with 0.030"/0.024" phenolic facings and a 8 pcf 0.320" thick core Specification: Al TL53/5000/79, Issue 8, Annex A, Types 1 and 2 (PC3)		Based on a panel 0.374" thick with 0.030"/0.024" phenolic facings and a 8 pcf 0.320" thick core Specification: Al TL53/5000/79, Issue 8, Annex A, Types 1 and 2 (PC3)		Based on a panel 0.374" thick with 0.020"/0.020" phenolic facings and a 9 pcf 0.334" thick core. Specification: Al 5360 M1M 000600, Issue 3 (PC3)		Based on a panel 0.374" thick with 0.020"/0.015" phenolic facings and a 8 pcf 0.339" thick core. Specification: Al 5360 M1M 000500, Issue 5 (CC1)		Based on a panel 0.374" thick with 0.017"/0.017" phenolic facings and a 8 pcf 0.340" thick core. Specification: Al 5360 M1M 000600, Issue 3 (PC1)	
0.762 (3.72) N/R	0.762 (3.72) N/R	0.637 (3.11) 660 (115)	0.592 (2.89) N/R	0.577 (2.82) 636 (111)					
442 (1966) 408 (1814)	442 (1966) 408 (1814)	435 (1935) 390 (1738)	315 (1403) 282 (1255)	353 (1569) 340 (1512)					
526 (2340) 472 (2099)	526 (2340) 472 (2099)	490 (2183) 413 (1840)	274 (1217) 281 (1249)	341 (1515) 357 (1587)					
0.639 (16.23) 0.588 (14.93)	0.639 (16.23) 0.588 (14.93)	0.354 (9.0) 0.329 (8.36)	0.874 (22.2) 0.833 (21.16)	0.413 (10.5) 0.398 (10.11)					
0.607 (15.42) 0.548 (13.91)	0.607 (15.42) 0.548 (13.91)	0.350 (8.89) 0.320 (8.13)	0.909 (23.09) 0.835 (21.21)	0.401 (10.19) 0.388 (9.86)					
7241 (32209) 6960 (30958) N/R	7241 (32209) 6960 (30958) N/R	5054 (22482) 5683 (25279) N/R	N/R	N/R					
			775 (3449) 741 (3295)	782 (3480) 738 (3283)					
Pass (No Damage) Pass (No Damage) N/R	Pass (No Damage) Pass (No Damage) N/R	Pass (No Damage) Pass (No Damage) N/R	N/R	N/R N/R Pass (No Damage)					
N/R	N/R	2118 (9420) 6567 (8554) 0.705 (17.91)	N/R	829 (3689) 1310 (5842) 0.415 (10.55)					
N/R	N/R	2237 (9951) 1923 (8554)		2212 (9837) 2008 (8930)					
N/R	N/R	3.5 (4.75)	4.875 (6.61)	2.75 (3.73)					
323 (1437)	323 (1437)	394 (1752)	N/R	339 (1510)					
N/R	N/R	80 (357) 62 (274)	65 (289) 58 (259)	85 (376) 62 (274)					
1820 (12.55)	1820 (12.55)	2392 (16.5)	N/R	2206 (15.21)					
3.9 0.5 (12.7) 0.0	0.0 6.0 (15.24) 0.0	2.9 0.3 (7.6) 0.0	1.1 0.4 (10.2) 0.0	27 0.5 (5.1) 0.0					
0.0 0.1 (2.54) 0.0	0.0 0.1 (2.54) 0.0	0.4 0.2 (5.1) 0.0	0.0 0.3 (7.6) 0.0	0.0 0.1 (2.54) 0.0					
N/R	N/R	N/R	0.0 0.4 None	N/R					
N/R	N/R	N/R	None 180	N/R					

³Chapter 9.8 relates to 4505

⁴Chapter 9.8 relates to 4123

⁵Chapter 9.9 relates to 4505

⁶Chapter 9.9 relates to 4123

⁷Chapter 9.10 relates to 4505 and 4605

N/R means Not Required

THE FUNNY SIDE

Note by the telephone, "Marcel Marceau called. No message."



You know childhood has passed you by when...
...the toys you played with as a kid are now being sold by antique dealers.
...the music a teenager listens to sounds like noise—unlike what you listened to.
...there's no longer any humor in hair replacement commercials.
...the only jeans that are comfortable are advertised as "relaxed fit".



Small boy to his father, "I don't know why you call this an allowance. It doesn't allow me to do much of anything."



"Get a life" and "Live it up" are not the same thing.



"My boyfriend and I have a personality conflict," she told a friend. "I have one and he doesn't."



Products not worth patenting: Can opener in a can. Inflatable dartboard. Nuclear hand grenades. Lobster helper.



"Sorry," said the man to the panhandler, "but my investments lost a great deal of money last week."

"Just because you had a bad week," replied the bum, "why should I suffer?"



The Patience Prayer:
Lord, grant me patience. And, I want it NOW!



Nothing makes a person more productive than the last minute.



Tennis scores go from 0 to 15 to 30 to 40. Sometimes growing older seems the same.



Many problems don't exist until a government agency is created to solve them.



Middle age: When your children tell you you're driving too slowly and your parents tell you you're driving too fast.

Trivia

The chances are 1 in 4 that an American will fall asleep with the TV on at least three nights a week.



Some birds double their weight before migrating.



A bird's feather may have more than one million parts.



Aardvarks are not related to any other living animal.



Armadillos can get leprosy.



50 La-Z-Boy recliners were delivered to the CIA in January 1996.



An average of 12,877 dog bites are sustained daily by Americans.



Americans spend an average of \$2,000 per second on legal drugs.



There are 1.3 cows in Britain for each unexploded land mine in Cambodia.



For an annual donation of \$1000 the Salesian Sisters of St. John Illosco will reserve a place for you in one of their nun's daily prayers.



Only the left hind foot of a rabbit is lucky. And the rabbit has to be killed at the full of the moon.



The Los Angeles Lakers professional basketball team signed Shaquille O'Neal to a \$120 million contract. For the same amount they could have purchased the entire Pittsburgh Pirates baseball team and the Hartford Whalers hockey team; or, paid President Clinton's salary for the next 600 years; or, bought 1,200 fast food franchises.



One ant weighs 1/10,000 of an ounce but collectively they weigh more than all the human beings on earth.