



# MMAN9001

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fZ \*%&E- ' , ) ( \$- + -'GWcc`C ZWk

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- Y"[ "UXa ]gg]cbgZ`ZYgZ`dfc[ fUa gZ`WYX]hHfUbgZYf

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- B 6. hY`fY`Yj UbhYUa g`]ghYX`UVcj Y`a i ghVY`WcbHUVWYX`Zcf`U`gh XYbhYbei ]f]Yg" H\Y`GWcc`k ]`cb`mVY`UV`Y`hc`fY`ZYf`gh XYbht]cb`hc`hY`fY`Yj UbhYUa ]Z`WcbHUVWYX


HYUW]b[ 'GhfUHY[ ]Yg'

H\YfY]g'bc'Zcfa U'h'UW]b[ 'Vi h\Y'ghi XYbhg'YUfb'Zca 'Vch' ]bhYfbU'UbX'YI h'fbU'gci fWg'"H\Y  
gi dYfj ]gcfZchYf'UWXYa ]Wj'UbX''UVcfUhcfm# cf\_g\cd'ghUZZUFY'h\Y' ]bhYfbU'gci fWg'Zk \YfYUg'h\Y'@]VfUfmž  
]bhYfbYhUbX' ]bXi gfmia Ybhcfg'UFY'h\Y'YI h'fbU'gci fWg'"H\YfY'UFY'bc'gYh'YWfi fYg'Zc'f'h' ]g'Wci fgYž'Vi hU  
bi a VYf'cZk cf\_g\cdg'k ]''VY'dfcj ]XYX'hc'Ugg]ghighi XYbhg'hc'Wca d'Yh'h\Y]f'h\Yg]g'hc'U'\[ \ 'ghUbXUfX'"5''  
k cf\_g\cdg'k ]''VY'fYWcfXYX'UbX'a UXY'Uj U]UV'Y'hc'ghi XYbhg'cb' ]bY"

# 5ggYgga Ybh

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Dfc[ fYgg'9j U'i Uh]cb'k ]h A Ybhcf	%)	K YY_`m	%ž'&ž' ž(
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GhUfhXUH. Bch5dd`]WVY

8YhU]`g.

U"8YgW]dh]cb'cZHY`hUg\_"

9UWk`hUa`k`]`dfYgYbhhY]f`\_YmZ]bX]b[ g'k YY\_`mhc`hY]f`a Ybhcf'UbX#f`Wci fgY`Wcbj YbYf"

' 8Bfa Y`WZHUgYgga Ybh`Ub[ W UYbXUb[ hY]`UbgYgga Ybh%WY.

Z`K \Yb`A Uf\_g`UfY`fYh`fbYX.

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5ggYgga`Ybh&.`Dfc`YWH`DfYgYbHh]cb

GHUfhXUHY.`Bch5dd`]WUV`Y

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U``8YgW]d]cb`cZ`hY`hUg\_`"

9UW\`hYUa`k`j`d`fYgYbh`hY]f`\_YmZ]bX]b[`g`k`YY`\_m]h`hY]f`a`Yb`h`fg`UbX`#`c`f`W`e`i`fgY`W`e`bj`YbYfz`Vi`h`hY`hYUa`k`j`VY`UggYggYX`cb`hY]f`d`fYgYbHh]cb`g\_]`g`UbX`Yj`Y`c`Z`c`f`[`Ub]gUh]cb"

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V``Bi`a`VYf`cZ`UggYgga`Ybh]`bW`i`XYX`]b`h`g`UggYgga`YbhWUHY`[`c`f`m`

:`f`c`a`k`YY`\_(`h`c`k`YY`\_`-`f]bW`i`g]j`Y`L`

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W`K` \Yh`Yf`hY`UggYgga`Ybh]g`U`;`f`c`i`d`D`f`c`Y`W`i`

h]g`U`[`f`c`i`d`UggYgga`Ybh!`a`U`i`+`d`Y`f`hYUa`"

.

X``5ggYgga`YbhW]hYf]U

H\Y`a`Uf\_]b[`W]hYf]U`Z`c`f`h`g`UggYgga`Ybhk`j`VY`a`UXY`Uj`U]UV`Y`cb`A`ccX`Y`#`G`HYUa`g

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Y``8YUX]bY`Z`c`f`UVgc`i`h`Y`ZU]`:`+`W]YbXUf`XUmg`UZ`Y`f`hY`Xi`Y`XUHY

B`#5

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Z`K \Yb`A Uf\_g`UfY`fYh`fbYX.

C b!hY!gdchZYXVUW\_

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H\Y'dfYgYbhU]cb'k ]''VY'XcbY''j] Y'cb'A G'HYUa g

5ggYgga Ybh' . Dfc[ fYgg'F Ydcfh

GHUfhXUHY. 'Bch5dd']WV'Y

@Yb[ h. )!%\$'dU[ Yg'Z'Zcbh/ 'YbX'a UHYf

8YHU]`g.

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Gh XYbhgi Va ]hg'Ub']bX]j]Xi U'fYdcfh!'ci h]b]b[ '\_YmZ]bX]b[ g'cZDfc'YWh5'UbX'dfcXi W'U'XYHU]YX'd'Ub'Zcf  
Dfc'YWh6']b'hY'bYI hHYfa "

V"Bi a VYf'cZUggYgga Ybhg]bW' X'X'j]b'h]g'UggYgga YbhWUHY[ cfm'

C b`mi%! 'Uh'hY'YbX'cZHY'hYfa

W'K \YhYf'hY'UggYgga Ybh]g'U'; fci d'Dfc'YWh'

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H\Y'a Uf\_]b[ 'W]HYf]U'Zcf'h]g'UggYgga Ybhk ]''VY'a UXY'Uj U]UV'Y'cb'A ccX'Y# G'HYUa g

Y"8YUX']bY'Zcf'UVgc'i h'ZU]'. '+WU'YbXUF'XUmg'UZHYf'hY'Xi Y'XUHY

+WU'YbXYf'XUmg'UZHYf'hY'Xi Y'XUHY"

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I dcb'fY'YUgY'cZHY'Z]bU'fYgi 'h'



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H\Y'gi Va ]gg]cb'k ]'VY'a UXY'cb'A ccX'Y"

## F Ygci fWg

### F YWca a YbXYX`F Ygci fWg

7 cbHrbhcb`hLY`Wci fgY`A ccX`Y`dU[ Y`k ]`VY`i dXUHYX`cZb`k ]h`hdgžX]gW gg]cbg`UbX`fYgci fWgž`gc`mci UfY`ghfcb[ `mUXj ]gYX`hc`a U\_Y`gi fY`mci `WXYW`Zcf`U`i dXUHYg"

Mci `Wb`U`gc`ZbX`i gYZ` `fYgci fWg`cb`hLY`I BGK ``]VfUfmk YVg]hY"

U`I BGK `@]VfUfmk YVg]hY. `hhdg.## k k ``]VfUfmi bgk "YXi "Ui #

V``A ccX`Y. `hhdg.## ccX`Y`h`hi bgk "YXi "Ui #c[ ]b#bXYI "d\`d

### 7ci fgY`9j U`i Uh]cb`UbX`8Yj Y`cda Ybh

: YXXVUW`cb`hLY`Wci fgY`]g[ U`hYfYX`dYf]cX]WJ`mi g]b[ ] Uf]ci g`a YUbgž]bWi X]b[ `hLY`I BGK a m9I dYf]YbW`dfcW`ggž]bZ`fa U`X]gW gg]cb`]b`hLY`ZbU`WUgg`Zcf`hLY`Wci fgYž`UbX`hLY`GWcc`g Gh XYbh`GhJZa YH]b[ g" Mci f`ZYYXVUW`]g`hU`Yb`gYf]ci g`nž`UbX`Wc`bh]bi U`]a dfcj Ya Ybhg`UfY`a UXY`hc`hLY`Wci fgY`VUgYXž]b`dUfž`cb`gi W`ZYYXVUW`" `b`h]g`Wci fgYž`fYWbh]a dfcj Ya Ybhg`fYgi`h]b[ `Zca`gh XYbh ZYYXVUW`]bWi XY. `Uj ]b[ `ga U`Yf`h`Ua`g]nYg`hc`]a dfcj Y`gh XYbhg]a Ybhf`Yb[ U[ Ya Ybh



UggYgga YbhdYfZcfa UbWžmci 'UfY'Y'[ ]V'Y'rc'Udd'mZcf'GdYWU'7 cbg]XYfUhc'b'df]cf'rc'gi Va ]h]b[ 'Ub  
UggYgga Ybhcf'g]h]b[ 'Ub'YI Ua "

I BGK 'bck '\Ug'U': [\]hrc'G\]h#Gi Va \]hfi\\_Yžk \\]W'a](#) YUbg'hUh]Zmci 'UthYa dhUb'YI Ua 'cf'gi Va ]hU'd]YW'cZ  
UggYgga Ybhž'mci 'UfY'XYWUf]b[ 'mci fgY'Z]hYbci [ '\rc'Xc'gc'UbX'Wbbch'Uhf'Udd'mZcf'GdYWU'  
7 cbg]XYfUhc'b"

: cf'XYHU]g'cZUdd'm]b[ 'Zcf'GdYWU'7 cbg]XYfUhc'b'UbX'WcbX]h]cbg'Zcf'hY'Uk UfX'cZgi dd'Ya YbhUfm  
UggYgga Ybhž'd'YUg'gYY'hY'jbZcfa Uhc'b'cb'I BGK 'g'[GdYWU'7 cbg\]XYfUhc'b'dU\]Y"](#)

D'YUgY'bc'hY'hUhighi XYbhg'k ]'bchVY'fYei ]fYX'rc'dfcj ]XY'UbmXcW'a YbhUfmYj ]XYbW'rc  
gi ddcfhUVgYbW'g'Zca 'UbmWUggYg'a ]ggYX'

# 5 WUXYa ]W< cbYgmiUbX`D`U[ ]Uf]ga

I BGK `Ug`Ub`cb[ c]b[ `Wca a ]ha Ybhlc`ZcghYf]b[ `U`W`hi fY`cZ`YUfb]b[ `]bZcfa YX`VmiUWUXYa ]W]bhY[ f]m`5`  
I BGK `gh`XYbhg`Uj`Y`U`fYgdcbg]V`]mhc`UX`YfY`hc`h`g`df]bW]d`Y`cZUWUXYa ]W]bhY[ f]m`D`U[ ]Uf]ga  
i bXYfa ]bYg`UWUXYa ]W]bhY[ f]m]UbX`]g`bchlc`YfUHYX`Uhl`BGK`"B`SY[Sde\_`SfG@E|`[e VWX`WV`Se ge[`Y`  
fZWl`ad/e ad[VWSe aXafZWde S`V`bSee[`Y`fZW\_`aXSe kagdai`ž`

D`U[ ]Uf]ga`]g`U`mdY`cZ]bhY`YWfi`U`h`YZh`#iW]b`hU`\_Y`a`UbmiZcfa`gž`Zca`XY`]VYfUHY`WXYUhb[`hc`UWUXYbH`m`  
Wcdm]b[`Zca`U`gci`fWY`k`]h`ci`hUW`bck`YX[`Ya`Ybh`I`BGK`Ug`dfcXi`WYX`U`k`YVg]hY`k`]h`U`k`YU`h`cZ`  
fYgci`fWY`g`hc`gi`ddcfhgh`XYbhg`hc`i`bXYfgHUbX`UbX`Uj`c]X`d`U[ ]Uf]ga`ž`]g]h`[gh`XYbh`i`bgk`"YXi`"Ui`#d`U\[ \]Uf\]ga`"](#)  
H\Y`@YUfb]b[`7`YbhfY`Ugg]ghg`gh`XYbhg`k`]h`i`bXYfgHUbX]b[`UWUXYa ]W]bhY[ f]m]UbX`ck`bchlc`d`U[ ]Uf]gY`  
H\YmiU`gc`c`X`k`cf\_g`cdg`UbX`W]b`Y`d`gh`XYbhg`cbY!cb!cbY"

Mci`UfY`U`gc`fYa`]bXYX`h`UhWfYZ`h`ja`Y`a`UbU[`Ya`Ybh]g`Ub`ja`dcffUbhdufhcZgh`XmiUbX`cbY`cZ`h`Y`  
]XYbh]Z`YX`W]i`gYg`cZ`d`U[ ]Uf]ga`]g`d`ccf`h`ja`Y`a`UbU[`Ya`Ybh`G`h`XYbhg`g`l`ci`X`U`ck`gi`Z`W]Ybh]ja`Y`Z`c`f`  
bXYfa`]bYYk`cfXYbhg`g`A`g`Wc`Z`U`D`W`W]i`#cbgH`%o`  
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5 WUXYa ]W=Zcfa Uh]cb

7 fYX]hdc]bhg

7 ci fgY`WYX]hg`W`W`UH`X`]b`I` b]hg!C Z 7 fYX]hfl C 7 E`H`Y`bcfa U`k cf`cUX`YI dYWUh]cb`Zf`cbY`I C 7

- [A ccXY](#)
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- [7ci fgY`Ci h\]bYg](#)
- [: UW`mHfUbg\]hcbU`5ffUb\[ Ya Ybthg`Zcf`7CJ`8!%-](#)
- [A U`YfgdUWY](#)
- [I BGK`Hja YhUV`Y](#)
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- [9ei \]hUV`Y`@YUfb\]b\[ `GYfj \]Wg](#)

⇒ U[ Y`7fYX]h

GmbYf[ ]Yg`]b`Gci bX`&\$%\*`

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7F ⇒7CG`Dfcj ]XYf`7cXY.`\$\$\$- , ;

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K Y`UW\_bck`YX[ Y`h`Y`6YXY[ U`dYcd`Y`k` \c`UfY`h`Y`fUX]h]cbU`W`g]hX]Ubg`cZ`h`Y`UbXg`cb`k` \]W`I`BGK`  
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5ddYbX|l . '9b[ ]bYYfg'5i ghfU`U'f95E'DfcZYgg]cbU`'9b[ ]bYYf'7ca dYhYbWm  
GHUbXUfX

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? bck `YX[ Y'UbX'g_]`VUgY	
D9%"%7 ca dfY\Ybg]j YzhYcfmVUgYX'i bXYfghUbX]b[ 'cZhY'i bXYfd]bb]b[ 'bUh fU`UbX d\mg]WU`gWYbWg'UbX'hY'Yb[ ]bYYf]b[ 'Z bXUa YbH'g'Udd`]WUV'Y'hc'hY'Yb[ ]bYYf]b[ 'X]gWd`]bY	
D9%"&'7 cbWdh U`i bXYfghUbX]b[ 'cZhY'a UhYa Uh]Wg'z'bi a Yf]WU`UbU'mg]g'ghUhg]Wg'z'UbX Wta di h'f'UbX' ]bZ'fa Uh]cb'gWYbWg'k \]W' i bXYfd]b'hY'Yb[ ]bYYf]b[ 'X]gWd`]bY	
D9%" " 'h!XYdh'i bXYfghUbX]b[ 'cZgdYWU`]ghVcX]Yg'cZ_bck `YX[ Y'k ]h]b'hY'Yb[ ]bYYf]b[ X]gWd`]bY	
D9%"('8]gWfba YbhcZ_bck `YX[ Y'XYj Y`cda YbhUbX'fYgYUfW'X]fYW]cbg'k ]h]b'hY Yb[ ]bYYf]b[ 'X]gWd`]bY	
D9%" ) ? bck `YX[ Y'cZYb[ ]bYYf]b[ 'XYg][ b'dfUW]W'UbX'WcbhYi h U`ZUW'c'fg]a dUW]b[ 'hY Yb[ ]bYYf]b[ 'X]gWd`]bY	
D9%"* 'i bXYfghUbX]b[ 'cZhY'gW'cdY'z'df]bWd`Yg'z'bcfa g'z'UW'W'ci bHUV`]h]Yg'UbX'Vci bXg'cZ gi gh]bUV'Y'Yb[ ]bYYf]b[ 'dfUW]W' ]b'hY'gdYW]ZWX]gWd`]bY	
9b[ ]bYYf]b[ 'Udd`]WU]h]cb'UV`]jm	
D9%"%5dd`]WU]h]cb'cZYghUV`]g\YX'Yb[ ]bYYf]b[ 'a Yh'cXg'hc'Wta d'Yi'Yb[ ]bYYf]b[ 'dfcV'Ya gc`]b[	
D9%"&:'i YbhUdd`]WU]h]cb'cZYb[ ]bYYf]b[ 'h'W]b]ei Yg'z'hc'g'UbX'fYgci fW'g	
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DfcZYgg]cbU`UbX'dYfgcbU`Uhf]Vi hYg	
D9' "%9h]WU`WcbXi W]UbX'dfcZYgg]cbU`UW'W'ci bHUV`]jm	
D9' "&'9ZYW]j Y'cfU`UbX'k f]hYb'Wta a i b]WU]h]cb`]b'dfcZYgg]cbU`UbX`UmXca U]bg	
D9' "' '7fYUh]j Y'z]bbcj Uh]j Y'UbX'dfc!UW]j Y'XYa YUbcif	
D9' "( 'DfcZYgg]cbU`i gY'UbX'a UbU[ Ya YbhcZ]bZ'fa Uh]cb	
D9' )" 'C'fXYf'ma UbU[ Ya YbhcZgY'z'UbX'dfcZYgg]cbU`WcbXi W]	
D9' "*" '9ZYW]j Y'hYUa 'a Ya VYfg\]d'UbX'hYUa ``YUXYfg\]d	