

ARTS2906

<]ghcfmcZGYLLU`]hm</pre>

HYfa "H\fYY" ## "&\$%-

7ci fgY'Cj Yfj]Yk

'GhJZZ'7cbhJWh'8YhJ]`g'

'7cbj Ybcfg'

B Ua Y	9a U]`	5j U]`UV]`]m	@cWJhjcb	D∖cbY
NcfU'G]a]W		A cbXUm&'\$!'.'\$/ Hi YgXUm%:4	A 6'' (+	- ' ,) %+' *

'Hi hcfg'

B Ua Y	9a U]`	5j U]`UV]`]lm	@cWUh]cb	D\cbY
@ _Y`J]HJY	`"j]tU`Y4 i bgk "YXi "Ui	6mYa U]`#]b`WUgg		

GWXcc`7cbHJWhi±bZcfa Uh]cb

GWkcc``cZ<iaUb]h]Yg'UbX'@Ub[iU[Yg

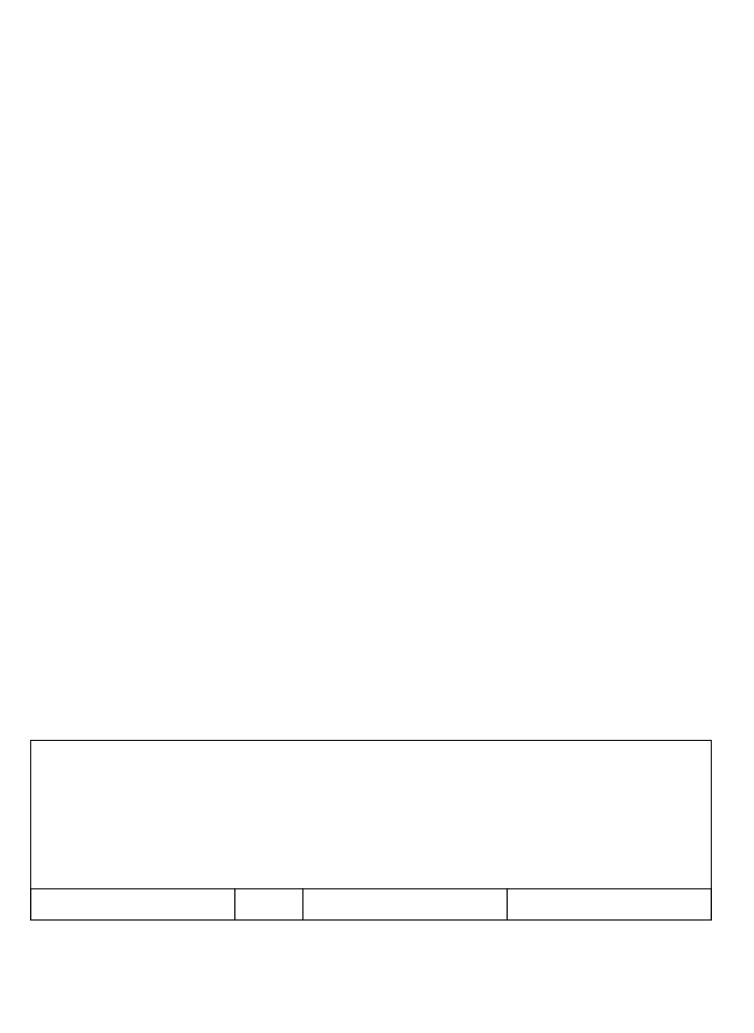
@c\\Ulrighthgaper: G\\\cc``C\\Z\\\Y\\Z\A\\cfj\Yb'6fck\b'6i\]\\X]b[\\Z'\@Yj\Y\`\&\Z'\&),

CdYb]b['<ci fg. 'A cbXUm! ': f]XUmž'- Ua '!') da

D\cbY.'Ž*%'&'-',)'%*,%

: UI . Ž*%'&'-',) ', +\$)

9a U]`. '<u>\U`4 i bgk "YXi "Ui</u>



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@Yb[h\.) a]bi hYg

8 YHJ]`g. 'Ghi XYbhg'dfYgYbhU'Zj Y!a]bi HY'dfYgYbhUhjcb'cb'U'gci fW'cZgYl i U`_bck `YX[YžVfcUX`mfY`UhYX'hc h\Y'k YY_'g'hcd]\%'h\Y'WUgg'Xi f]b['h\Y'hk c!\ci f'hi hcf]U'"'K YY_g'UfY'U`cWUhYX']b'h\Y'Zjfgh'hi hcf]U'"'H\Y]f dfYgYbhUhjcb'g\ci `X'Yb[U[Y'k]h\'UggYgga Ybhei Yghjcbg'f]bgh'i Whjcbg'dfcj]XYX']b'h\Y'Wci fgY [i]XYŁ"Ghi XYbhg'k]``'U'gc'gYbX'h\Y]f'hi hcf'fj]U'Ya U]'Ł'h\Y'dck Yf!dc]bh#; cc[`Y'G`]XYg'cZh\Y]f'dfYgYbhUhjcb bc``UhYf'h\Ub'-Ua 'cZh\Y'a cfb]b['cZh\Y]f'dfYgYbhUhjcb'Zcf'h\Y'hi hcf'hc'`cUX'cb'A ccX'Y"'H\Y'dfYgYbhUhjcb']g k cfh\'%) i "UbX'ghi XYbhg'UfY'UggYggYX'cb'WcbhYbhz'XY`]j Yfmž'UbU`mg]g'UbX'h\Y'dfYgYbhUhjcb g`]XYg"Ghi XYbhg'k]```fYWY]j Y'k f]hYb'ZYYXVUW_j j]U'Ya U]'k]h\]b'U'k YY_cZh\Y]f'dfYgYbhUhjcb"

Gi Va]gg]cb'bchYg.D`YUgY'gYbX'mci f`DD#; cc[`Y'g`]XYg'hc'mci f'hi hcf'UbX'NcfU']b'UXj UbWY'gc'h\Ym\Wbb'cUX'cbhc'A ccX'Y"

Hi fb]hb gYhb[. H\]g]g bchU Hi fb]hb Ugg][ba Ybh

5ggYgga Ybh& Hi hcf]U'/ @YWhi fY F YgdcbgYg

GhUfhiXUhY. Bchi5dd`]WUV`Y

@Yb[h\.`&\$\$'kcfXg'l'*'1'\&\$\$'kcfXg

8 YHU]`g. 5 Wfcgg h\Y hYfa žighi XYbhgʻUbgk Yfʻg]l ei Ygh]cbgʻ]bʻk f]h]b['VUgYX'cb'hi hcf]U`fYUX]b[gʻUbX#cf YWhi fY WcbhYbhcZUddfcl]a UhY`m&\$\$`k cfXg`YUW\"Ghi XYbhgʻfYWY]j Y`k f]hhYbʻZYYXVUW_j j]U`Uʻfi Vf]WUbX]bX]j]Xi U``Wca a YbhgʻfHi fbʻ±n±b#A ccX`YŁ'UbX'U`gcʻ[YbYfU``ZYYXVUW_j]bʻhi hcf]U`gʻk]h\]bʻhYbʻXUmgʻcZ gi Va]gg]cb"

5XX]h]cbU`XYhU]`g.

9 UW. k YY_fg'h hcf]U`']g'cf[Ub]gYX'Ufci bX'(!) 'ei Ygh]cbg''Cj Yf'h Y'Wci fgY'cZh Y'h Yfa 'mci 'Ubgk Yf'G \pm h hcf]U`'ei Ygh]cbg'Zfca 'G \pm 'X]ZZYfYbhk YY_g'f]"Y'bc'hk c'ei Ygh]cbg'Zfca 'gUa Y'k YY_ \pm "' \Mci 'gi Va]hh\ Y ei Ygh]cbg']b'rk c'VUh\X\Yg'! &'fYgdcbgYg'UhYbX'cZK YY_'(\pm '('fYgdcbgYg'UhYbX'cZK YY_''\%''

D`YUgY`ZcchbchY`mcifh hcf]U``fYgdcbgYg"`Bc`V]V`]c[fUd\mbYWYggUfm"

⊋ig]b[']b!hYl hžfYZYfYbWY``]gha i ghVY`]bWi XYX"

GYY A ccX`Y Zcf a cfY XYhU]`g"

Gi Va]gg]cb bchYg. D`YUgY gi Va]hhc A ccX`Y]b hk c]bghU'a Ybhgž]b cbY Z]Y YUWX ha Y"

5qqYqqa Ybh' F YqYUfW 9qqUm

GHJfh:XUhY.

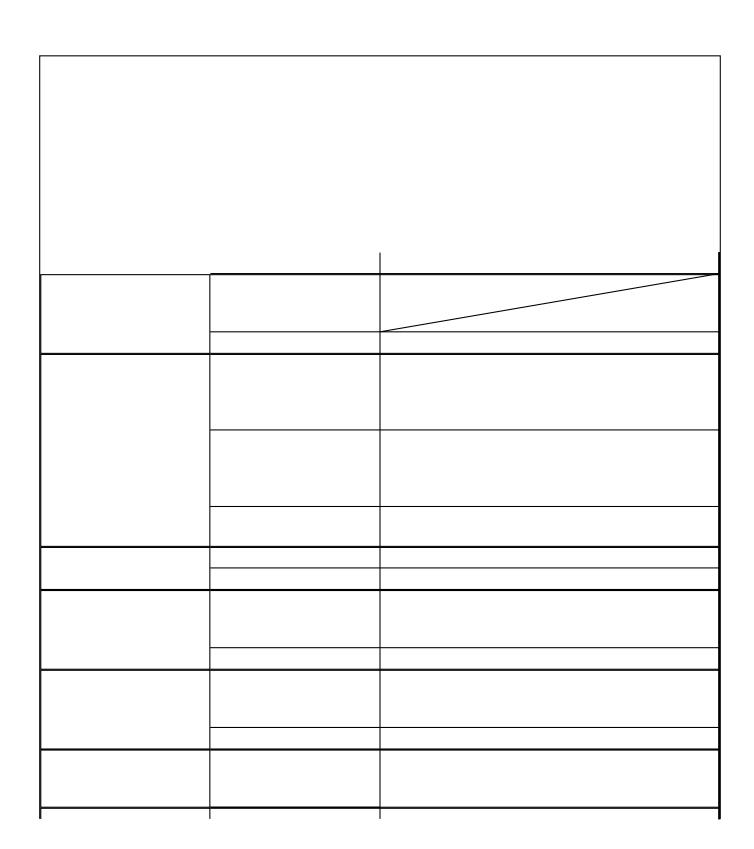
@Yb[h\. &\$\$\$ k cfXg

8YHJ]`g. `Ghi XYbhg`k f]hY`Ub`YggUmfUddfcl]a UhY`m&\$\$\$`k cfXgŁ`VUgYX`cb`]bXYdYbXYbhfYgYUfW."'H\Y YggUm]g`h\Y`ZbU``UggYgga YbhZcf`UhYbXUbW'`di fdcgYg": YYXVUW_'j]U`]bX]j]Xi U``Wca a Ybhg`UbX`fi Vf]W fHi fb`±i±b#A ccX`YŁ`bc``UhYf`h\Ub`hYb`XUmg`UZhYf`gi Va]gg]cb"

5XX]h]cbU`XYhJ]`g.

9ggUmei Ygh]cbg'k]``VY'dcghYX'cb'A ccX`Y'YUf'm]b'h\Y'Wci fgY"'Ch\Yf'fYgci fWYg'k]``VY'dfcj]XYX'!'Ub YggUm[i]XY'UbX'fYWca a YbXYX#gi [[YghYX'fYgci fWYg']b'@Y[Ubhc"'=i]g'fYWca a YbXYX'h\Uhmci ii gY'Uh `YUgh'*!, 'gYWcbXUfmgci fWYgžd`i g'df]a Ufma UhYf]U'ž'Zcf'U'fYgYUfW\'YggUm''9ggUmg'g\ci `X'VY'Z ``mUbX'dfcdYf'mfYZYfYbW'X'UbX'dfYgYbhYX']b'fYei YghYX'Zcfa Uhff%') 'hc'Xci V'Y'gdUW]b[ž'&dc]bhZcblz"

 $\label{thm:continuous} \begin{tabular}{ll} Hi & fb & fb & gYM &$



Fygci fWyg

DfYgWf]VYX F Ygci fWYg

 Gi Va]gg]cb cZ5ggYgga YbhHUg_g

Gi Va]gg]cb cZ5ggYgga YbhHUg_g

Hi fb]h]b Gi Va]gg]cb

5 WUXYa | W < cbYghmUbX D`U[| Uf]ga

D`U[]Uf]ga i]gii g]b[ih\Yik cfXgicfi]XYUgicZch\YfgiUbXidfYgYbh]b[ih\Ya iUgimci fick b"i±iWUbihU_Yia Ubm Zcfa qžZfca iXYi]VYfUhYiW\YUh|b[ihciUVW]XYbhU`mWcdm]b[iZfca iUiqci fWYik]h\ci hiUW_bck iYX[Ya Ybh'i

IBGK '[fci dg'd'U[]Uf]ga ']bhc'h\Y'Zc``ck]b['WUhY[cf]Yg.

7 cdm]b[.'i g]b['h\Y'gUa Y'cf'j Yfmg]a]`Uf'k cfXg'hc'h\Y'cf][]bU`hYl h'cf']XYU'k]h\ci h'UW_bck `YX[]b['h\Y gci fW'cf'i g]b['ei chUh]cb'a Uf_g"'H\]g'U`gc'Udd`]Yg'hc']a U[Ygž'Ufh'UbX'XYg][b'dfcYWhgž'Ug'k Y``'Ug dfYgYbhUh]cbg'k\YfY'gca YcbY'dfYgYbhg'Ubch\Yf'g']XYUg'cf'k cfXg'k]h\ci h'WfYX]h'

⇒ Uddfcdf]UhY 'dUfUd\fUg]b[...7\Ub[]b['U'ZYk 'k cfXg'UbX'd\fUgYg'k \]'Y 'a cghmfYhJ]b]b['h\Y'cf][]bU` ghfi Wh fY 'UbX#cf'dfc[fYgg]cb'cZ]XYUg'cZh\Y'cf][]bU'žUbX']bZcfa Uh]cb'k]h\ci hUW_bck `YX[Ya Ybh'H\]g'U`gc Udd`]Yg']b'dfYgYbhUh]cbg'k \YfY'gca YcbY'dUfUd\fUgYg'Ubch\Yf'g']XYUg'cf'k cfXg'k]h\ci hWfYX]hUbX'hc d]YW]b['hc[Yh\Yf'ei chYg'UbX'dUfUd\fUgYg']bhc'U'bYk 'k \c`Yžk]h\ci hUddfcdf]UhY'fYZYfYbW]b["

7 c``i g]cb. 'k cf_]b['k]th 'cth Yfg'Vi hidUgg]b['cZZth Y 'k cf_'Ug'U'dYfgcb'g']bX]j]Xi U``k cf_"'7 c``i g]cb'U`gc]bWi XYg'dfcj]X]b['mci f'k cf_'thc'Ubcth Yf'ghi XYbh'VYZcfY'th Y'Xi Y'XUHYZcf'Zcf'th Y'di fdcgY'cZth Ya

- i bXYfgfUbX mci f'f][\hg'UbX'fYgdcbg]V]`]hJYg'Ug'U'gh XYbhUhl BGK
- VY`Uk UfY`cZd`U[]Uf]ga ž`Wcdmf][\hz'l BGK `Gh XYbh7cXY`cZ7cbXi WhUbX`5VWWdhUV`Y`l gY`cZ I BGK `=\forall H`F Ygci f\W\g`Dc`]\m\m
- VY 'Uk UfY 'cZh\Y 'ghUbXUfXg 'cZVY\Uj]ci f'Yl dYWYX 'cZYj YfmcbY ']b 'h\Y 'l BGK 'Wca a i b]hm
- `cWUHY 'gYfj]WYg'UbX ']bZcfa UH]cb'UVci hI BGK 'UbX'I BGK '@]VfUfm

Gca Y'cZh\YgY'UfYUg'k]``VY'ZJa]`]Uf'hc'mci ž'ch\Yfg'k]``VY'bYk"'; U]b]b['U'gc`]X'i bXYfgHJbX]b['cZU``h\YfY`UhYX'UgdYWng'cZ9@+69'k]``\Y`d'mci 'a U_Y'h\Y'a cghicZmci f'ghi X]Yg'UhI BGK "'\\hd.##qi V'YWfi |XYg"`]VfUfm'i bqk "YXi "Ui #\`]qY#JVci hY`]qY

5 WUXYa]W±bZcfa Uhjcb

: cf`YggYbhJU``gh XYbh]bZcfa UhJcb`fY`UhJb['hc.

- fYei YghgʻZcfʻYl hYbg]cb/`UhYʻgi Va]gg]cbgʻ[i]XY`]bYg/
- fYj]Yk 'cZa Uf_g/
- I BGK < YU`h\ UbX GUZYmdc`]W]Yg/
- YI Ua]bUh]cb dfcWXi fYg/