ARTS3510

7ci fgY'CjYfj]Yk

'GHJZZ'7cbHUWh'8YHU]`g'

'7cbjYbcfg'

BUaY	9a U]`	5j U]`UV]`]hm	@cWHh]cb	D\cbY
8Yb]gY'<UbhY`	X"\UbhY`4 i bgk"YXi"Ui	hVW	hVW	b#U

GWXcc`'7cbHUWh'±bZcfa Uh]cb

GWXcc`'cZ'<i a Ub]h]Yg'UbX'@Ub[i U[Yg

@cWHh]cb.'GWXcc`'CZ'A cfjYb'6fck b'6i ]`X]b[ž'@YjY`'&ž'&),

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

D\cbY.'Ž*%&'-',) '%*, %

: Ul .'Ž*%&'-',) ', +$)

9a U]`.'\U`4 i bgk"YXi"Ui

5hYbXUbWY'FYei]fYa Ybhg

5'ghi XYbh]g'YldYWhYX'hc'UhYbX'U``'WUgg'WcbHUWh'\ci fg'Zcf'U'ZUWY!hc!ZUWY'fl &'Ł'cf'V'YbXYX'ci fgY'UbX'Wca d'YhY'U`'UWhj]h]Yg'Zcf'U'V'YbXYX'cf'Ž`m`cb]bY'WcifgY"

5'ghi XYbh'k \c'Uff]jYg'a cfY'h\Ub'%)'a]bi hYg'`UhY'a UmVY'dYbU`]gYX'Zcf'bcb!UhYbXUbWY"'±Zgi W\'U'dYbU`hm]g'a dcgYXž'h\Y'ghi XYbh'a ughVY']bZcfa YX'j YfVU``mUhh\Y'YbX'cZWUgg'UbX'UXj]gYX']b'k f]h]b['k]h\]b'&(\ci fg"

±ZU'ghi XYbh'YldYf]YbWY'g']`bYgg'a ]gUXjYbh fY'cf'ch\Yf'cWWffYbWY'h\Uh a U_Yg'UbgYbWY'Zfca 'U'WUgg#UWh]j]hmi bUjc]XUV`YžcfYldYWhg'hc'VY'UVgYbhZfca 'U'Zcfh\Wca]b['WUgg#UWhj]hmžh\Ymg\ci `X'gYY_ dYfa ]gg]cb'Zca 'h\Y'7ci fgY'5i h\cf]mžUbX'k \YfY'Udd`]WUV`Yžh\Y'fYeiYghg\ci `X'VY'UWWca dUb]YX'VmUb cf][ ]bU`'cf'WYfh]ZYX'Wcdm'cZU'a YX]WU`'WYfh]ZUHYž'cf'ch\Yf'Zcfa 'cZUddfcdf]UhY'Yj]XYbWY"

5'7ci fgY'5i h\cf]mma UmYl WgY'U'ghi XYbh'Zca 'WUggYg'cf'UWhj]h]Yg'Zc'i d'hc'cbY'a cbh\"'<ck Yjefž'h\Ym a UmUgg][b'UXX]h]cbU`'UbX#cf'U`hYfbUh]jY'Ug_g'hc'Ybgi fY'Wca d'YVWW"'5'7ci fgY'5i h\cf]mWcbg]XYf]b['h\Y [fUbh]b['cZUVgYbWY'a i ghVY'gUh]gZ]YX'U'ghi XYbh'k]``'gh]``'VY'UV`Y'hc'a YYh'h\Y'Wci fgY'g'YUfb]b['ci hWca Yg UbX#cf'jc]i a Y'cZ'YUfb]b['"'5'ghi XYbh'gYY_]b['Uddfcj U`'hc'VY'UVgYbh'Zc'a cfY'h\Ub'cbY'a cbh\'a i ghUdd`m]b'k f]h]b['hc'h\Y'8YUb'UbX'dfcj]XY'U``'cf][ ]bU`'cf'WYfh]Z]YX'gi ddcfh]b['XcWfa YbhUh]cb"

: cf'a cfY']bZcfa Uh]cb'UVci hh\Y'UhYbXUbWY'dfchcWc`'g']b'h\Y': UWf`hmcZ'5fhg'UbX'GcW]U` GW]YbWYg.'\hhdg.#k k k"Ufhg'i bgk"YXi"Ui #WffYbh'ghi XYbhg#UWUXYa ]W!]bZcfa Uh]cb#dfchcWc`g![i]XY`]bYg#

.

5WUXYa]W±bZcfa Uh]cb'

: cf'YggYbh]U`'ghi XYbh]bZcfa Uh]cb'fY'Uh]b['hc.'fYei Yghg'Zcf'Yl hYbg]cbg#fYj ]Yk 'cZa Uf_g#cWWU`dUh]cbU`'\YU`h\

UbX g̈UˈZ̄Ÿhm Ÿl̄ Ua]bUh]cb dfcW̄X̄i fYg gdYW]U `Wcbg]XYfUh]cb]b H̄ Y Ÿj Ybh cZ] bYgg cf̄a]gUXj Ybh̄ fY
ghi XYbh Yei]hm UbX X]gUV]]hm UbX ch̄ Yf̄ YggYbh]U `UW]XYa]W]b̄cfa Uh]cbž

gYY `\ttdg.##k̄ k k "Ufh̄g"i bgk "YXi "Ui #V ffYbh̄ghi XYbh̄g#UWUXYa ]W]b̄cb#dfchc̄Wc`g![i]XY`]bYg#

7ci fgY 8YhU]`g

7fYX]h Dc]bhg ˙*˙

Gi a a UfmcZ h\Y 7ci fgY

Gi VYWh 5fYU ˙9Wd_S` EfgV[We

Ł b h\]g Wci fgY mci k]`` Wcbgc`]XUhY UbX Y! hYbX mci f g_]`g ]b ]ghUbb]b[ hcž gdYU_]b[ž fYUX]b[ UbX k f]h]b[ ; Yfa Ubž k]h\ U X]gh]bWh ! cWig cb ; Yfa Ub gcW]YhmUbX W `hi fY" @YUfb]b[ UWh]j]h]Yg ]bW`iXY UbU`mg]b[ Wca d`Yl hYlhg cb WcbhYa dcfUfmhcd]Wg/\c`X]b[ X]gWigg]cbg cb dfYdUfYX gi VYWhg k]h\ Zc``ck ghiXYbhgž UbX Wca a ib]WUh]b[cb U fUb[Y cZ gdYW]ZYX gi VYWhg fY`Uh]b[ hc ]ggiYg cZ h\Y Yj YfmXUmž Vi h U`gc hc VfcUXYf gcW]U`ž dc`]h]WU`ž UbX Wi`hi fU` ei Ygh]cbg" Mci k]`` U`gc YldUbX UbX \cbY ]a dcfhUbh ghiX]Yg_]`g gi WX Ug Wccg]b[Uddfcdf]UhY YUfb]b[ghfUhY[]Yžm a cb]hcf]b[UbX UXj UbW] bh mci f ck b dfc[fYgg"

5hh\Y WcbWi g]cb cZ h\]g Wci fgY h\Y ghiXYbh k]`` VY UV`Y hc

%" 5bU`mgY Uf[i a Ybhg ]b hYl hg XYU`]b[k]h\ WcbhYa dcfUfmdfcV`Ya g h\Uh UfY fY`Yj Ubh hc
 ; Yfa Ubcd\cbY Wca a ib]hYg"

&" 8YVUhY cb dfYdUfYX gi VYWhg]b ; Yfa Ub k]h\ U XY[fYY cZ Zi YbWmUbX gdcbhUbY]hm'

' " DfcXi WY WYUf žXYhU]`YX k f]hYb UbX gdc_Yb X]gWigg]cbg cb U k]XY fUb[Y cZ gi V(YWgg...

a YUbg˙cZWca a i b]WUh]cb˙UbX˙Ug˙Ub˙U]X˙hc˙`YUfb]b[˙Ug˙k Y``˙Ug˙hc˙XYa cbghfUhУ˙gca Y˙UV]˙]mˏUg˙Ub]bXYdYbXYbh˙YUfbYf

5ggYgga Ybh

5ggYgga Ybh·HUg_g·

5ggYgga Ybh·HUg_	K Y][\h	8i Y·8UhY	

HYgh &¨&(#$)#&$%¸%$!%%¨Ua

Hi fb]h]b gYhh]b[. H\]g]g bchU Hi fb]h]b Ugg][ba Ybh

5ggYgga Ybh¨' . GdYU_]b[5ggYgga Ybh

GhUfh XUhY . Bch5dd`]WUV`Y

@Yb[h\ . +!¸a]bg

8YhU]`g . Ghi XYbhg WcbXi Wh g\cfh X]U`c[i Yg f+!¸a]bgŁ]b dU]fg cf ga U``[fci dg". YYXVUW_j]U a Uf_]b[fi Vf]WUbX]bX]j]Xi U`Wca a Ybhg"

Hi fb]h]b gYhh]b[. H\]g]g bchU Hi fb]h]b Ugg][ba Ybh

Gi Va]gg]cb cZ 5ggYgga Ybh HUg_g

Ghi XYbhg UfY Yl dYWhYX hc di hh\Y]f bUa Yg UbX ghi XYbhbi a VYfg cb Yj Yfm'dU[Y cZ h\Y]f Ugg][ba Ybhg"

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

Zmci YbWci bh\Yf U dfcV Ya k \Yb Uh\Ya dh]b[hc gi Va]h mci f Ugg][ba Ybh h\fci [\ Hi fb]h]b bž d YUgY h Yd d\cbY 9 l h\YfbU Gi ddcfh cb - ' ,) '' ' ' %'cf Ya U]` h\Ya cb [Yl h\Yfbi hY hgi ddcfh4 i bgk "YXi "Ui ] Gi ddcfh \ci fg UfY ', .$$ Ua – %$.$$da cb k YY_XUmg UbX - .$$ Ua – ) .$$da cb k YY_YbXg f1 *) XUmg U mY UfŁ" Zmci UfY i bUV Y hc gi Va ]h mci f Ugg][ ba Ybh Xi Y hc U ZUi `hk]h\ Hi fb]h]b mci a U UmUdd mlcf Ub Yl h\Ybg]cbž Vi h mci a i ghfYHU]b mci f h]W Yhbi a VYf Zca 9 l h\YfbU Gi ddcfh]fU]cb[k h\ Ubmci h\Yf fY'Yj UbhXcW a Ybhg Łhc]bWi XY Ug Yj]XYbW hc gi ddcfh mci f Yl h\Ybg]cb Udd]WUh]cb" Zmci Ya U]` 9 l h\YfbU Gi ddcfh mci k] Ui hca Uh]WMU mfYWj Y U h]W Ybhi a VYfž Vi h mci Hi fb]h]b U gc dfcj]XYg i dXUhYg cb h\Y]f gmghYa ghUh gcb Hk]hhYf"

; YbYfU mž UggYgga Ybh HUg_g a i ghVY gi Va]hhYX Y YWhfcb]WU m j]U Y]h\Yf Hi fb]h]b cf U A ccX Y Ugg][ba Ybh ±b bgUbWg k \YfY h\]g]g bchdcgg]V Yž h k] VY ghUhYX cb mci f WcifgY'g A ccX Y g]hY k]h\ U h\Y fbUh]j Y gi Va]gg]cb XYhU]`g"

@UhY 5ggYgga Ybh DYbU`h]Yg

5b UggYggYX HUg_]g XYYa YX UX UHY]Z]h]g gi Va]hhYX UZHYf h\Y gdYWŽYX h]a Y UbX XUhY Ug gYhci h]b h\Y Wci fgY @YUfb]b[A UbU[Ya Ybh GmghYa f@A GŁ"

H\Y UHY dYbU`hm]g h\Y cgg cZ) ι cZ h\Y hchU dcgg]V Y a Uf_g Zcf h\Y HUg_ Zcf YUW XUmicf dUfhh\YfYcZ h\Y k cf_]g UHY" @UhYbYgg k]]bWi XY k YY_YbXg UbX di V]W\c]XUmg" H\]g XcYg bchUdd]c U HUg_ h\Uh]g UggYggYX ci h bc a Uf_]g Uk UfXYX"

K cf_ gi Va]hhYX Zci fhYYb f1%(Ł XUmg UZHYf h\Y Xi Y XUhY k] VY a Uf_YX UbX ZYYXVUW_ dfcj]XYX Vi h bc a Uf_ k] VY fYWcfXYX" Zh\Y k cf_ k ci X \Uj Y fYWY]j YX U dUgg a Uf_ Vi h Zcf h\Y UHYbYgg UbX h\Y k cf_]g U Wca di `gcfm Wci fgY Wca dcbYbhž U ghi XYbh k] VY XYYa YX hc \Uj Y a Yh h\Uh fYei]fYa Ybh" H\]g XcYg bch Udd]c U HUg_ h\Uh]g UggYggYX ci h bc a Uf_]g Uk UfXYX"

K cf_ gi Va]hhYX k YbhmicbY f1&% Ł XUmg UZHYf h\Y Xi Y XUhY k] bchVY UWWdhYX Zcf a Uf_]b[cf ZYYXVUW_ UbX k] fYWj Y bc a Uf_ cf [fUXY" Zh\Y UggYgga Ybh HUg_]g U Wca di `gcfm Wca dcbYbhcZ h\Y Wci fgY U ghi XYbhk] Ui hca UhML mZU] h\Y Wci fgY"

GdYWU`7cbg]XYfUh]cb 5dd`]WUh]cbg

Mci W Ub Udd]c cf gdYWU Wcbg]XYfUh]cb k \Yb] bYgg cf ch\Yf WfWa ghUbWg]bhYfZYfY k]h\ mci f UggYgga Ybh dYfZcfa UbW"

G]W bYggž a]g UXj Ybh fY cf ch\Yf WfWa ghUbWg VYmcbX mci f Wcbhfc `a Um

ł DfYj Ybhmci Zca Wta d Yh]b[U Wci fgY fYei]fYa Ybhž

ł ?YYd mci Zca UhhYbX]b[Ub UggYggUV Y UWhj]hmž

ł Ghcd mci gi Va]h]b[Ub UggYggUV Y k cf_ cf U Wci fgYž

Ł ˈG][b]ŽWUbh]mˈUŽŽYWh]mci ˈfˈdYfŽcfaˈUbW'ˈ]bˈUggYggU`Yˈk cf_žˈVYˈ]hUˈŽcfaˈU``YbX!cŽˈgYaˈYghŸfˈYłˈUaˈ]bUh]cbžˈU WUgg ˈhYghžˈU``UVcfUhcfmˈhYghžˈU ˈgYa]bUfˈdfYgYbhUh]cb ˈcf ˈUbmˈch\Yf ˈŽcfa ˈcŽ ˈUggYgga Ybh

: cfˈŽˈfh\YfˈXYhU]`g ]bˈfY`Uh]cbˈhcˈGdYW]U`ˈ7cbg]XYfUh]cbˈ]bW`iX]b[ˈˇKˈ\Ybˈhcˈ5dd`mˈžˇ<ckˈhcˈ5dd`mˇˈUbX ˇGiddcfh]b[ˈ8cWiaYbhUh]cbˇˈd`YUgYˈfYŽYfˈhcˈh\YˈGdYW]U`ˈ7cbg]XYfUh]cbˈkYVg]hYˈ

[\Hhdg.##ghiXYbh'ibgk"YXi"Ui#gdYW]U`'!Wcbg]XYfUh]cb](\Hhdg.##ghiXYbh'ibgk"YXi"Ui#gdYW]U`'!Wcbg]XYfUh]cb)

5WUXYa]W <cbYghmˈUbXˈDˈU[ˈ]Uf]ga

DˈU[ˈ]Uf]gaˈ]gˈiˈg]b[ˈh\YˈkcfXgˈcfˈ]XYUgˈcZˈch\YfgˈUbXˈdfYgYbh]b[ˈh\YaˈUgˈmcifˈckbˈ‡h\Ubˈh\U_YˈaˈUbm Zcfaˈg\ˈZcaˈXYˈ]VYfUh\YˈWXYUh]b[ˈ]hcˈUWY]XYbhUˈ`ˈm\Wˈdm]b[ˈZˈcaˈUˈgcifWˈYˈ`ˈh\ciˈhˈUW_bckˈ`XˈYaˈYbh‚

IˈBGKˈ`[fciˈdgˈdˈU[ˈ]Uf]gaˈ]bhcˈh\Yˈ`Zˈ``ckˈ]b[ˈWUhˈY[cfˈYg.

7cdm]b[ˈ.ˈiˈg]b[ˈh\YˈgUaˈYˈcfˈjˈYfmˈg]aˈ]UfˈkcfXgˈhcˈh\Yˈcf][ˈ]bUˈ`ˈhYˈ`hˈcfˈ]XYUˈ`kˈh\ciˈhˈUW_bckˈ`Xˈ]b[ˈh\Y gcifWYˈcfˈiˈg]b[ˈ`eiˈchˈUh]cbˈaˈUf_g"ˈHˈ\gˈU`gcˈUdd`YgˈhcˈaˈUˈYˈgzˈUfhˈUbXˈXˈdg[ˈbˈdfcˈYWˈgzˈUgˈkˈYˈ``ˈUg dfYgYbhUh]cbgˈkˈYfYˈgcaˈYcbYˈdfYgYbhgˈUbˈh\Y'gˈ]XYUgˈcfˈkˈcfXgˈ]h\ciˈhˈWfYX]h‚

‡bUddfcdf]UhYˈdUfUdˈ\fUg]b[ˈ.ˈWˈUb[ˈ]b[ˈUˈZYˈ`kˈ`cfXgˈUbXˈd\fUgˈgˈkˈ\]Yˈaˈcgh]fˈYh\U]b[ˈb[ˈh\Yˈcf][ˈbˈU` ghfiˈWh\iˈfYˈUbXˈ]bˈZcaˈUˈh]cbˈkˈh\ciˈhˈUW_bckˈ`Xˈ[ˈYaˈYbh‚ˈH\ˈgˈU`gcˈUdd`Ygˈ]bˈdfYgYbhUh]cbˈkˈ\YfYˈgcaˈYcbY dUfUdˈ\fUg[ˈgˈUbchˈ\Yf'gˈ]XYUgˈcfˈkˈcfXgˈ]h\ciˈhˈWfYX]h‚ˈ‡UˈgcˈUdd`Ygˈhcˈd]YWˈb[ˈ]ˈhc[ˈYh\Yfˈ`eiˈch\Ygˈ]UbX dUfUdˈ\fUg]bhˈUˈbYkˈ`kˈ\cˈYˈžˈ]h\ciˈhfYZˈYfbˈW]bˈUbXˈU`gh]XYbˈhgˈckb[ˈUbUˈmg]gˈhcˈVfˈ]b[ˈh\YˈaˈUhYf]Uˈ` hc[ˈYh\Yf"

7c``i[ˈ]cb.ˈkˈcf_]b[ˈkˈ]h\ˈch\YfgˈVˈi]hˈdUggˈ]b[ˈcˈZˈh\Yˈkˈcf_ˈUgˈUˈdYfgcb’gˈ]bX]ˈjˈXiˈU`ˈkˈcf_"ˈ7c``i[ˈ]cbˈUˈgc]bˈWiˈdXˈYgˈdfcjˈ]X]ˈbˈmcifˈkˈcf_ˈhcˈUbchˈ\YfˈghˈiXYbhˈhˈVYˈcfˈYˈh\Yˈ]ˈiˈYˈXhYˈ_žˈcfˈZˈcfˈh\Yˈ]difXcgˈYˈcZˈh\Yˈa dˈU[ˈ]Uf]g]b[ˈUhˈUbmˈh]aˈYˈ`dUy]b[ˈ]UbchˈYfˈdYfgcbˈhcˈdYfˈZcaˈ`Ubˈ`UWUXYaˈ]WˈhUgˈ_žˈghYU`ˈ]b[ˈ`cfˈUWˈéˈi]f]b[ˈ` UbchˈYfˈdYfˈgcb’gˈ`UWUXYaˈ]Wˈkˈcf_ˈUbXˈWcdm]b[ˈ]hˈ`cZZˈYfˈ]b[ˈhcˈWca ﾖ`YﾖhYˈUbchˈYfˈdYfˈgcb’gˈkˈcf_ˈcfˈgYYˈ_ˈ]b[ˈ dUaˈYbhˈhcfˈWca ﾖd´hˈ]b[ˈUˈWUXYaˈ]Wˈkˈcf_"

‡bUddfcdf]UhYˈW]hUh]cb.ˈ7ˈ]h]b[ˈgcifWˈYgˈkˈ]ﾖˈ\UjˈYˈbchˈVYYbˈfYUXžˈkˈ]h\ciˈhˈUW_bckˈ`Xˈ[ˈ]b[ˈh\Yˈ˝gYˈWcbXUfm˝ gcifWˈYˈZcaˈ`kˈ]ﾖˈ_bckˈ`XˈYˈcZˈh\Yaˈˈ\UgˈVYYbˈcVhU]bYX"

8id`Whˈ]cbˈfˈ]gYˈ]fˈdˈU[ˈ]Uf]gaˈ˝Ł`giˈVˈmˈ]hﾖ] b[ˈˈmcifˈckbˈ`kˈcf_žˈ]bˈkˈ`cˈYˈcfˈ]bˈdUfhˈžˈ\YfYˈ]h\UgˈdfYjˈ]ciˈgˈm VYYbˈdfYdUfˈYXˈcfˈgiˈaˈ]hﾖYXˈ`cfˈUbchˈYfˈUggˈYggaˈYbhˈcfˈWciˈfgˈYˈUhˈIˈBGKˈcfˈUbchˈYfˈ]ˈbˈjˈYfg]hmˈ‚

7cffYWh\ifYZˈYfbˈW]b]b[ˈ`dfUW]h]WYg.

- VYhhYf'a UbU[Y'mci f'h]a Y

K YY_ ˙%&. ˙&%˙A Um! ˙&+ A Um	Hi hcf]U`	F Yj]g]cb ⁄ ˙HYgh˙dfYdUfUh]cb
	@YWh fY	HYgh˙&˙#GdYU_]b[˙HYgh˙dfYdUfUh]cb
K YY_ ˙% . ˙&, ˙A Um! ˙' >i bY	Hi hcf]U`	GdYU_]b[˙5ggYgga Ybh

F Ygci fWⁱg

DfYgWf]VYX F Ygci fWⁱg

HYI hⁱcc_

5gdY_hⁱ bYi ⁱ6&"ⁱ@Y\f!ⁱ bXⁱ5fVY]hgVi Wⁱ ⁱa]h5i X]c!78"ⁱHY]`ⁱ%⁻6B ⁱ- +, !' !%&!*$) $&+!&ⁱfUj U]ⁱUV`Y ⁱUhh\Y I b]j Yfg]hⁱ6cc_ghcfYⱢ

F YWⁱca a YbXYX F Ygci fWⁱg

GYY ⁱA ccX Y ⁱWⁱci fgY k YVg]hY

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

⁼a U[Y 7fYX]h

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

7 F ⁼7 CG

7 F ⁼7 CG Dfcj]XYf 7cXY $$$- ;