

# **ARTS2244**

FYh\]b\_]b['K]`X`]ZY.'D\]`cgcd\mž'6]cX]j Yfg]hmž'91 h]bWf]cb

HYfa 'H\fYY''##'&\$&\$

# 7ci fgY<sup>\*</sup>Cj Yfj ]Yk

## GHJZZ:7cbHJWh:8YHJ]`g

## 7cbj Ybcfg

B Ua Y	9a U]`	5j U]`UV]`]lm	@cWJhjcb	D\cbY
7 c`]b'GU`hYf		D`YUgY`WcbHJWhj]U		
		Ya U]`		

## GWXcc`7cbHJWh ≠bZcfa Uh]cb

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

@c\WJh]cb. G\W\cc``C\Z]\\Y\ž\A\cfj\Yb'6fck\b'6i\]\X]b[\ž'@Yj\Y``&\ž\&),

## 7ci fgY 8YHJ] g

#### 7 fYX]hDc]bhg\*\*

#### Gi a a UfmcZh\Y 7ci fgY

#DITH ]G WEI FGY INC. IK ] "YI d'CFY IN ] CGCD ] WU IUDX IDC. ] HJWD I ] GGI YG ] DIK ] X ] ZY WE BGY FJ UHJC D' ZECA IU FUDE [YICZ X] GW JD UHJC D' ZECA IU FUDE [YICZ X] GW JD UHJC D' ZECA IU FUDE [YICZ X] GW ZY GW JY GW YG JD WI XY. IN YIZ II FY ICZ II FV UD IK ] X ] ZY YW BGY FJ JLY VY IK YY D' BUHJ YY UDX JD IF CAY WY ZGY WJY GW AY TECY YCZ [Y DY V UDD\_] D [IUDX WC D] D [IUDX WC DGY FJ JD [IUDX IN YIZ] JZY VY IK YY D' WC DGY FJ JD [IUDX IN YIZ] GET HAY COY VUDX IUDX UD ZECA IN YIZ GAY WJY GW YG UD IN YIZ GY YOU LO XID XID X GET YOU AND THE COY IN YIZ GY IN YGY IN YG

#### 7 ci fgY @YUfb]b[ Ci hMca Yg

- %" 9 I d`U]b`h\Y`\]ghcf]\W\``UbX`d\]`cgcd\]\W\``XYj Y`cda YbhcZV]cX]j Yfg]\m\\cbgYfj Uh\cbz`]\g`i bXYf`m]b[UbU`m]\W\ZTUa Yk cf\_g`UbX`]\g`g\]Zh\b[`df]cf]\h\Yg"
- &" 9 I d`U]b`\ck `W\`ii fU``UbX`dc`]h]WU``ZUWcfg`]a dUWii dcb`i bXYfghUbX]b[gžj U`i Uh]cbg`UbX`YZZcfhg`hc WcbgYfj Y`YbXUb[YfYX`k]`X`]ZY"
- " 5 bU`mgY`h\Y`Wca d`YI`]bhYfgYWIJcb`VYhk YYb`W`hi fU``UbX`V]c`c[]\WJ`#\Wc`c[]\WJ``UddfcU\X\Yg`hc WcbgYfj Uhlcb`]ggi Yg"
- ("5dd`mgY`YVMYX`X]gVJd`]bUfmUddfcUV\\Yg`hc`h\Y`i bXYfgHbX]b[`cZV]cX]j Yfg]lmUbX`YI hjbWfjcbg/UbX XfUk `cb`U`fUb[Y`cZX]ZYfYbhX]gWJd`]bUfmUddfcUV\\Yg`hc`YI d`cfY`gca Y`cZh\Y`a i `hjZJWYhYX`k Umg`]b k\]W\`k]X`]ZY`a UhYfg`fhc`dYcd`Y`UbX``Uf[Yf`YV\cgmghYa gŁ"
- ) " 5dd`mg\_]``g`cZWf]h]WU``UbU`mg]gž'dfcV`Ya!gc`j]b[ 'UbX`]bhYfdfYhUh]cb`]b`Vch\`kf]hhYb`kcf\_'UbX`]b! WUqq`X]qW qq]cbq"
- \* " 7 cbXi WhjbXYdYbXYbhfYgYUfWX 'UbX'UggYa V`Yž'gmbh\Yg]gY 'UbX'Wca a i b]WUhY 'Z]bX]b[g'UbX | bhYfdfYfUhcbq"

## HYUWX]b[ 'GhfUhY[]Yg'

H\]g`Wci fgY`Ug\_g`gh XYbhg`hc`Yb[U[Y`k]h\`h\YcfYh]WU``k cf\_`h\UhW\U``Yb[Yg`Zci bXUh]cbU``Uggi a dh]cbg UVci hih\Y`k cfX`UbX`h\Y`cVYWh] Yg`cZWcbgYf] Uh]cb`UbX`Ybj ]fcba YbhU`]ga 'a cfY`[YbYfU``m'`H\Y`WcfY cVYWh] Y`cZh\]g`Wci fgY`]g`hc`ZJa]`]Uf]gY`gh XYbhg`k]h\`h\]g`X]ZJW`ha UhYf]U``h\fci [\``YWh fYgž]b!XYdh\ h hcf]U``X]gW gq]cbgž]bXYdYbXYbhfYqYUfW\žUbX`h\Y`dfYdUfUh]cb`cZUgqYqqa YbhHUq\_g"

 $H\g_{2}^{-1}g^{-1}hY^{-1}bU^{-1}UggYgga\ YbhHUg_{2}^{-1}Zcf^{-1}UhYbXUbW^{-1}di\ fdcgYg^{"}$ 

Gi Va ]gg]cb bchYg.GYY h\Y Wci fgYfg A ccX`Y k YVg]hY"

Hi fb]hjb gYhjb[. H\]g ]g bchU Hi fb]hjb Ugg][ ba Ybh

5ggYgga Ybh' . FYZYWNjcbg UbX fYUX]b[ fYj ]Yk g

Ghufh Xuhy.

@Yb[h\.'%\$\$\$

8 YHJ] g.

 $\label{eq:conditional} F YZYW1ji Y YI YfW1gYg `UbX`cb`]bY `X]gWi gg]cb`dcghg`Zcf`dfYgWf]VYX`k YY\_g`UWfcgg`h\Y`hYfa "`%+) $`k cfXg`]bhchU`"$ 

C b`]bY`X]gWigg]cbg'k ]```Zcfa 'h\Y`VUg]g'cZga U``![fci d'UWfj]]f]Yg'UbX`]b!WUgg'UWfj]]f]Yg''8YfU]`YX`ZYYXVUW\_k]```dfcj]XYX`cb`fYZYWf]cbg''5`a Uf\_]b[`[i]XY`k]``VY`dfcj]XYX`]b'UXj UbW!''

Gi Va ]gg]cb bchYg. \$(#\\$#&\$&\$ '\% \$\$ DA

Hi fb]hjb gYhjb[. H\]g ]g bchU Hi fb]hjb Ugg][ ba Ybh

5ggYgga Ybh(.; fci d'dfYgYbhJh]cb

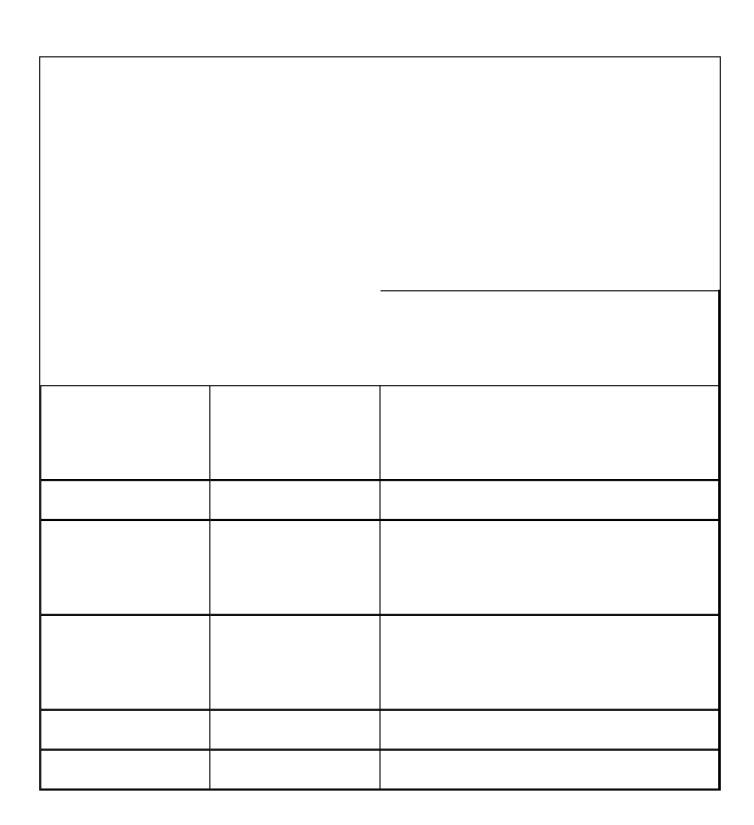
GHJfh XUhY.

8 YHJ] g.

Cj Yfj ]Yk 'cZWUgY'ghi XmUbX'ZJY`X'fYgYUfW\'dfcYWrzjXYbhjZnjb['fYgYUfW\'a Yh\cXc`c[mUbX'\_Ymei Yghjcbg"' 8YhU]'YX'ZYYXVUW\_'k]``VY'dfcj ]XYX'cb'[fci d'dfYgYbhUhjcb"'5'a Uf\_]b['[i ]XY'k]``VY'dfcj ]XYX']b'UXj UbWY"

Gi Va ]gg]cb bch/g.GYY h\Y Wti fgYfg A ccX`Y k YVg]hY"

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



FYgci fWfg

DfYgWf]VYX F Ygci fWYg

Bch'Uj U]`UV`Y

FYWca a YbXYX FYgci fWYg

BchUj U]`UV`Y

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

 $7\,ci\,fgYg\,'UfY\,'dYf]cX]WU\,``mfYj\,]Yk\,YX\,'UbX\,'ghi\,XYbhg'\,'ZYYXVUW_\,]g^{;}g^{;}gYX\,'hc^{;}]a\,dfcj\,Y\,'h\,Ya^{;}:\,YYXVUW_\,]g^{;}g^{;}Uh\,YfYX\,'Zfca^{;}ghi\,XYbhg^{;}ig]b[^{;}a\,m9l\,dYf]YbWY^{;}=i]g^{;}YbWci\,fU[^{;}YX\,'ghi\,XYbhg^{;}Wca^{;}XYhY^{;}h\,Y]f^{;}gi\,fj\,Ymg^{;}Vm^{;}Mg^{;}Yh^{;}g$ 

## Gi Va ]gg]cb cZ5ggYgga YbhHUg\_g

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

Image: Ybwei bhyfu'dfcv'ya k \yb'uhhya dhjb[ 'hc'gi va ]hmci f'Ugg][ ba Ybhh\fci [ \ 'Hi fb]h]bž'd'YUgY

Hy'Yd\cby'9| hy'fbu''Gi ddcfhcb'-', ) '' ' ' %cf'Ya U]''h\Ya 'cb'Y! hy'fbu'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'fl \*) 'XUmg'U'mYUft"'=Z'mci
UfY'i bUV'Y'hc'gi va ]hmci f'Ugg][ ba YbhXi Y'hc'U'ZJi 'hk ]h\ 'Hi fb]h]b'mci 'a UmUdd'mZcf'Ub'Y! hy'bg]cbž'Vi hmci
a i ghfYhJ]b'mci f'h]W\_Yhbi a VYf'Zfca '9! hy'fbU''Gi ddcfhfU'cb[ 'k ]h\ 'Ubmch\Yf'fy'Yj UbhXcW a Ybhgt'hc
]bWi XY'Ug'Yj ]XYbW' 'hc'gi ddcfhmci f'Y! hy'bg]cb'Udd']WUh]cb"'=Zmci 'Ya U]''9! hy'fbU''Gi ddcfhmci 'k ]'`
Ui hca Uh]WJ'`mfYW']j Y'U'h]W\_Yhbi a VYfZ'Vi h]Zmci 'hY'Yd\cbY'mci 'k ]``bYYX'hc'gdYW]Z]WJ'`mUg\_'Zcf'cbY''
Hi fb]h]b'U'gc'dfcj ]XYg'i dXUhy'g'cb'h\Y]f'gmghYa 'ghUh' g'cb'Hk]hyf''

; YbYfU`mž'UggYgga YbhiHug\_g'a i ghVY'gi Va ]hhYX'Y`YVWfcb]\WJ``mij ]U'Y]h\Yf'Hi fb]h]b'cf'U'A ccX`Y Ugg][ ba Ybh''=b']bgHJb\W'g'k \YfY'h\]g']g'bchdcgg]V`Yž']hk ]```VY'gHJhYX'cb'mci f'\\circ i fgY'g'A ccX`Y'g]hY'k ]h\U`hYfbUh]j Y'gi Va ]gg]cb'XYHJ]`g"

cfi]bZcfa Uhjcbicbi\ckihcigi Va ]hUgg][ ba Ybhgicbi]bYij ]UiA ccXiY.i\hdg.#gh XYbhi bgk "YXi "Ui #\ck! gi Va ]hUgg][ ba Ybha ccXiY

## 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=hWJbihU\_Yia Ubm Zcfa gžZfca iXYi]VYfUhYiWXYUh]b[ihciUWW]XYbhU`mWcdm]b[iZfca iUigci fWYik]h\ci hiUW\_bck iYX[Ya Ybh'

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

- 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'qYfj |WYq'UbX']bZcfa UHcb'UVci hi BGK 'UbX'l 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 VYWfi |XYg"`]VfUfm'i bqk "YXi "Ui #\`]qY#JVci hY`]qY

# 5WUXYa]W±bZcfaUhjcb

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

• fYei Yghg Zcf Yl hYbg]cb/