

KIC 011030475

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
011030475-01	OBS	2248.01	2.818155	132.249715	309.8	1.786	18.7	20.6	0.79	5167	1.41	298.23
011030475-02	OBS	2248.03	0.761954	132.029645	174.3	1.290	16.8	18.9	0.79	5167	1.26	1705.79
011030475-03	OBS	2248.04	2.646238	132.663128	183.1	1.229	7.6	9.2	0.79	5167	1.29	324.33

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011030475-01	OBS	PC	0.90	0	0	0	0	NO_COMMENT
011030475-02	OBS	PC	0.99	0	0	0	0	NO_COMMENT
011030475-03	OBS	PC	0.99	0	0	0	0	NO_COMMENT

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

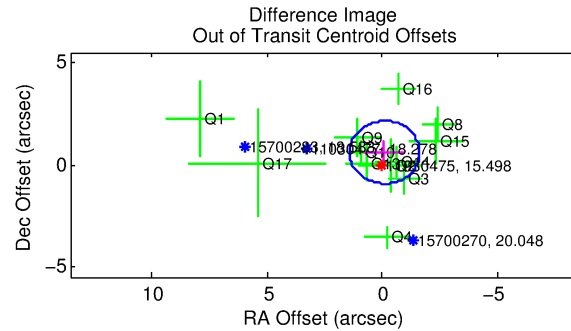
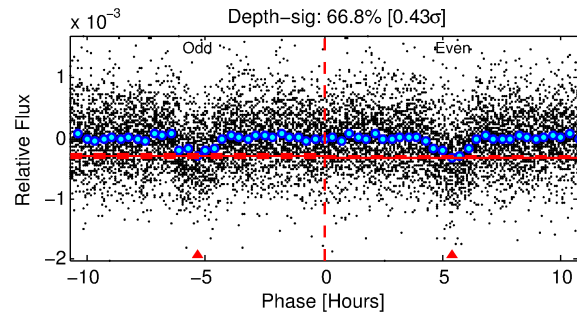
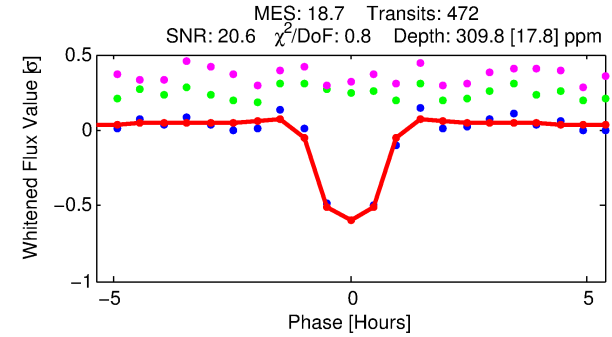
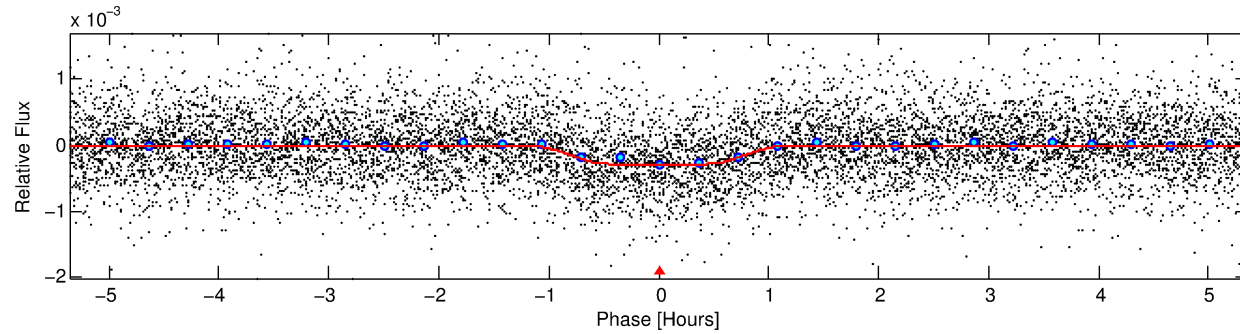
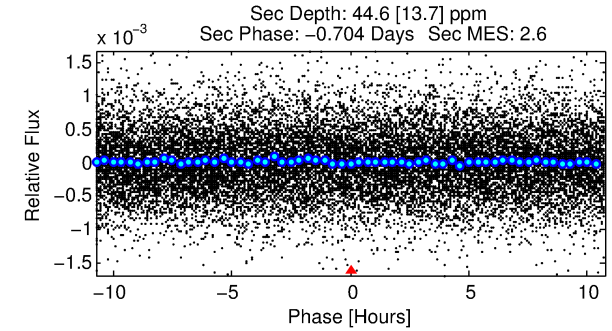
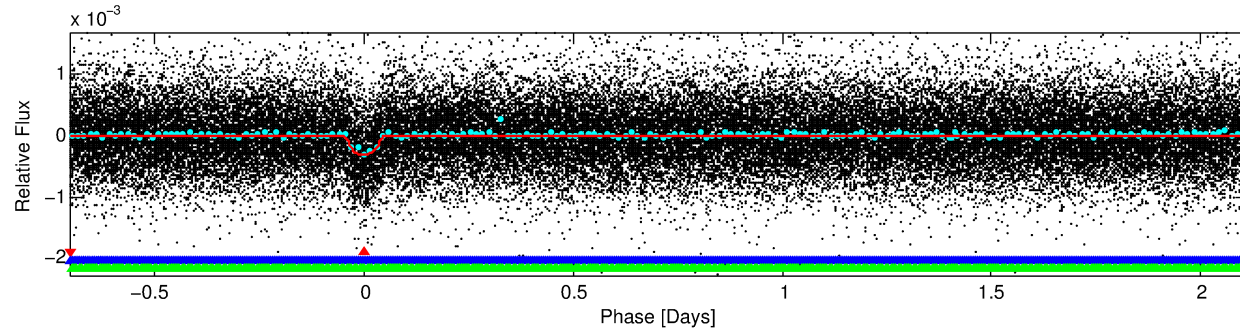
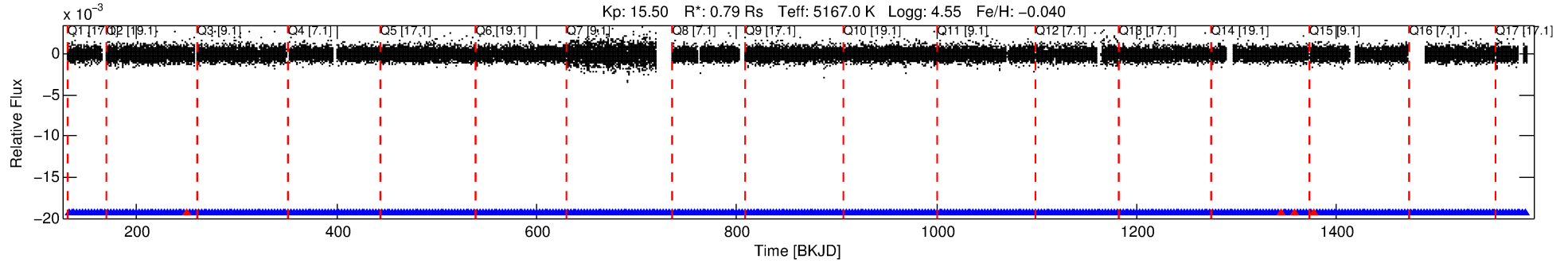
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011030475-01

No Significant Match Found

DV One-Page Summary

KIC: 11030475 Candidate: 1 of 3 Period: 2.818 d
KOI: K02248.01 Corr: 0.990



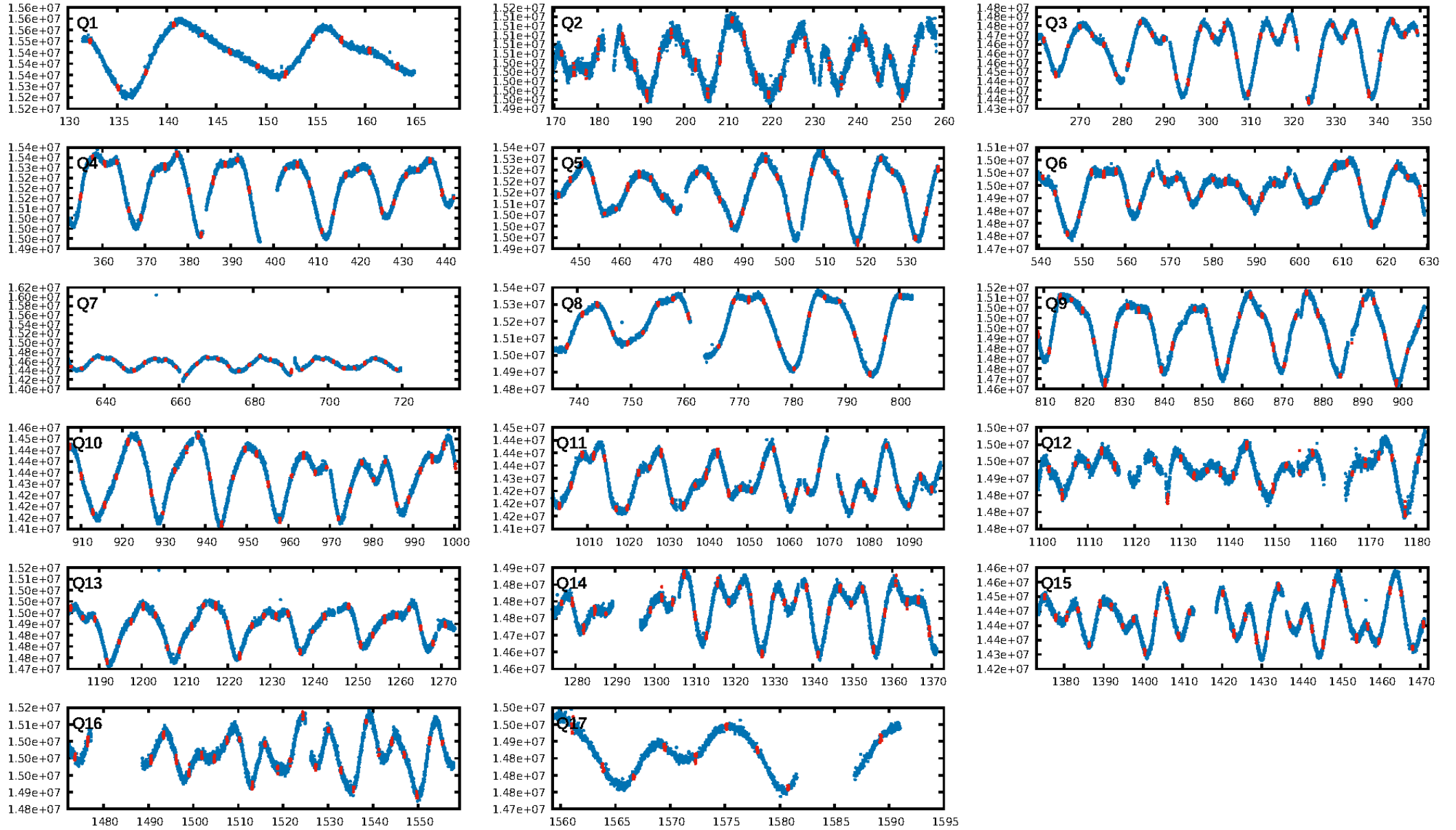
DV Fit Results:

Period = 2.81816 [0.00001] d
Epoch = 132.2497 [0.0014] BKJD
Rp/R* = 0.0165 [0.0077]
a/R* = 10.50 [17.49]
b = 0.53 [2.35]
Seff = 298.23 [35.62]
Teq = 1060 [32] K
Rp = 1.41 [0.67] Re
a = 0.0364 [0.0022] AU
Ag = 16.29 [16.18] [0.95σ]
Teffp = 3292 [816] K [2.73σ]

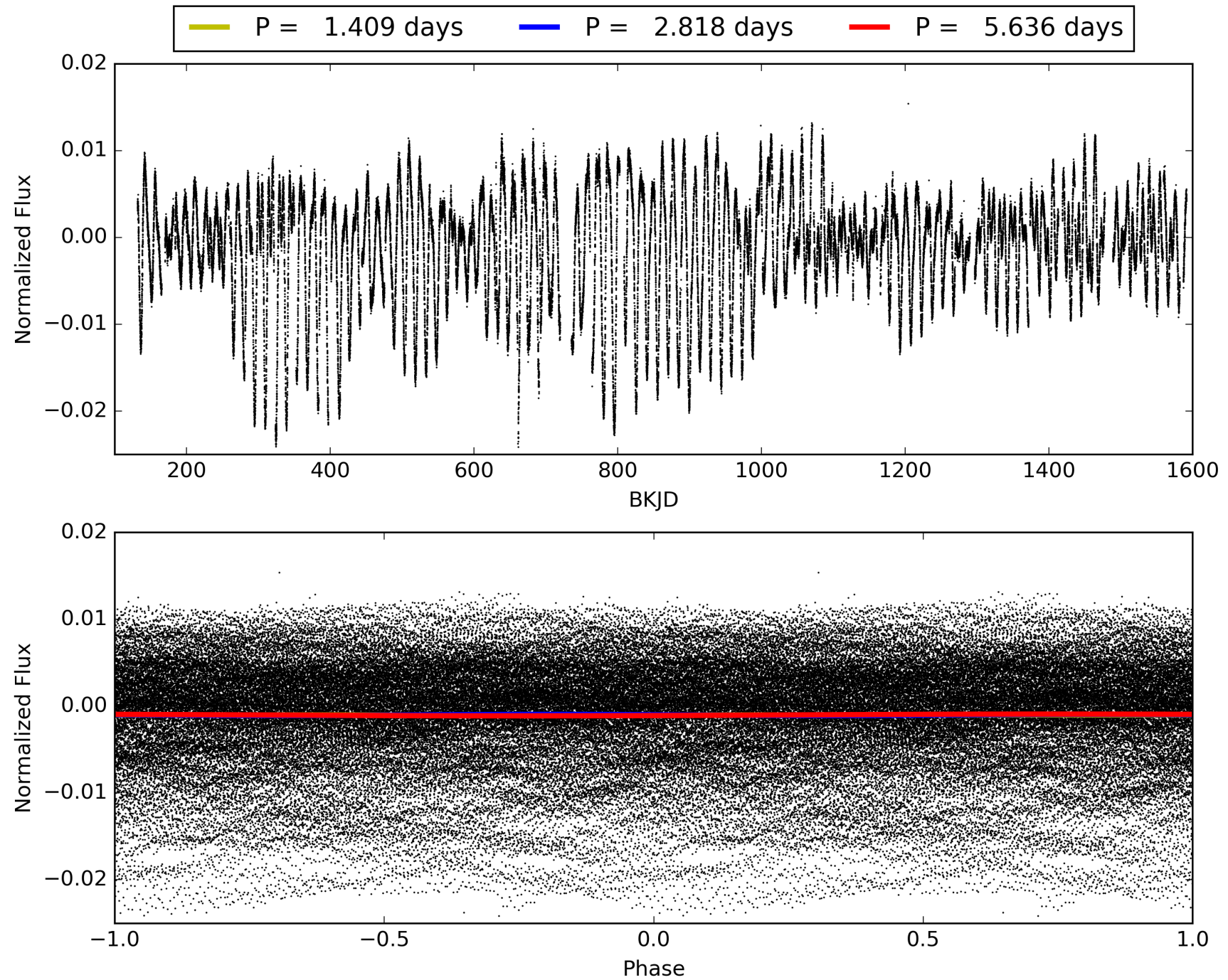
DV Diagnostic Results:

ShortPeriod-sig: 94.3% [1.90σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 3.08e-74
RollingBand-fgt: 0.99 [447/451]
GhostDiagnostic-chr: 4.748
Centroid-sig: 0.3%
Centroid-so: 0.956 arcsec [1.64σ]
OotOffset-rm: 0.612 arcsec [1.20σ]
KicOffset-rm: 0.643 arcsec [1.24σ]
OotOffset-st: 3/2/3/4 [12]
KicOffset-st: 3/2/3/4 [12]
DiffImageQuality-fgm: 0.58 [7/12]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 011030475-01, PDC Light Curves

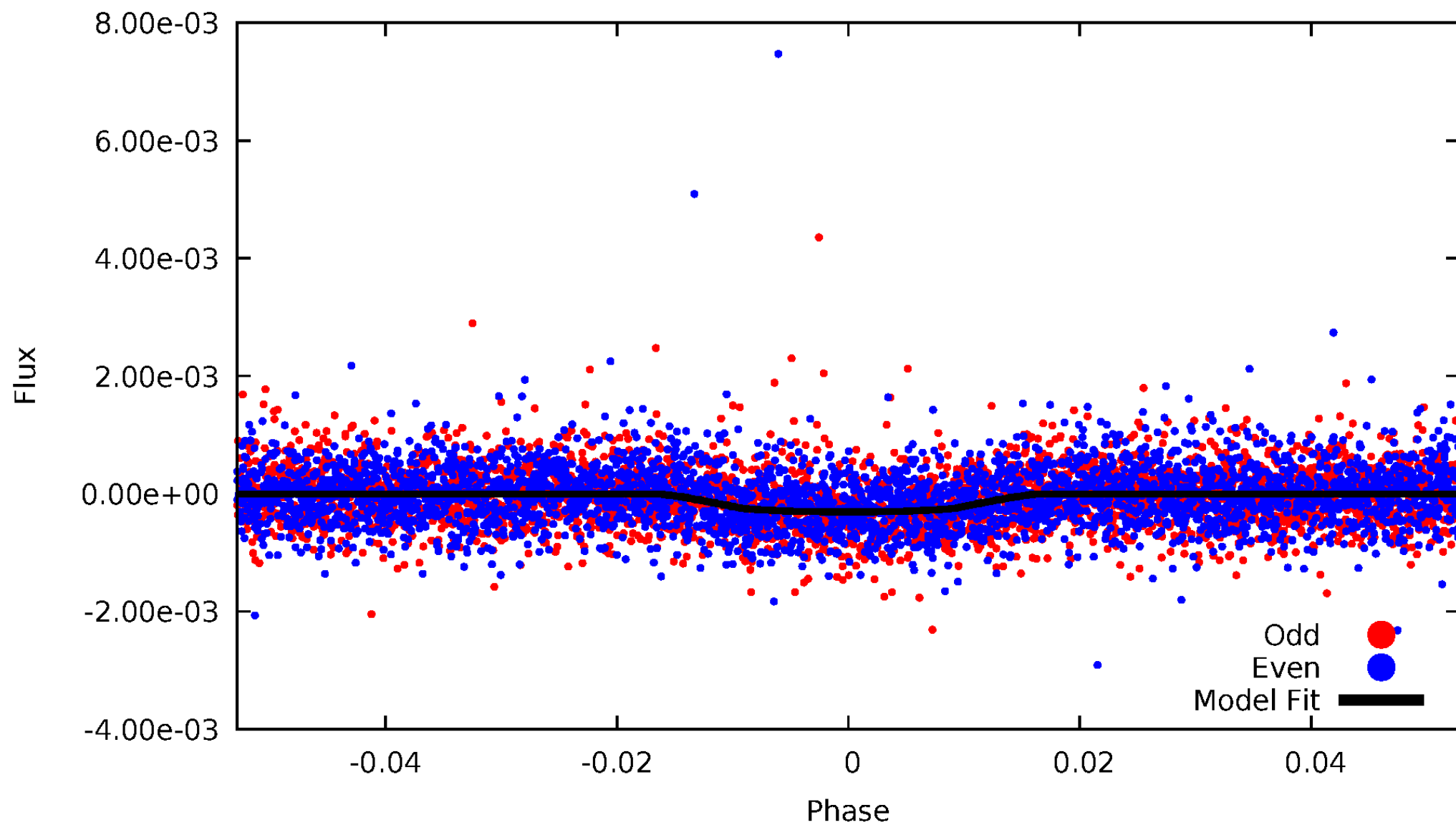


TCE 011030475-01



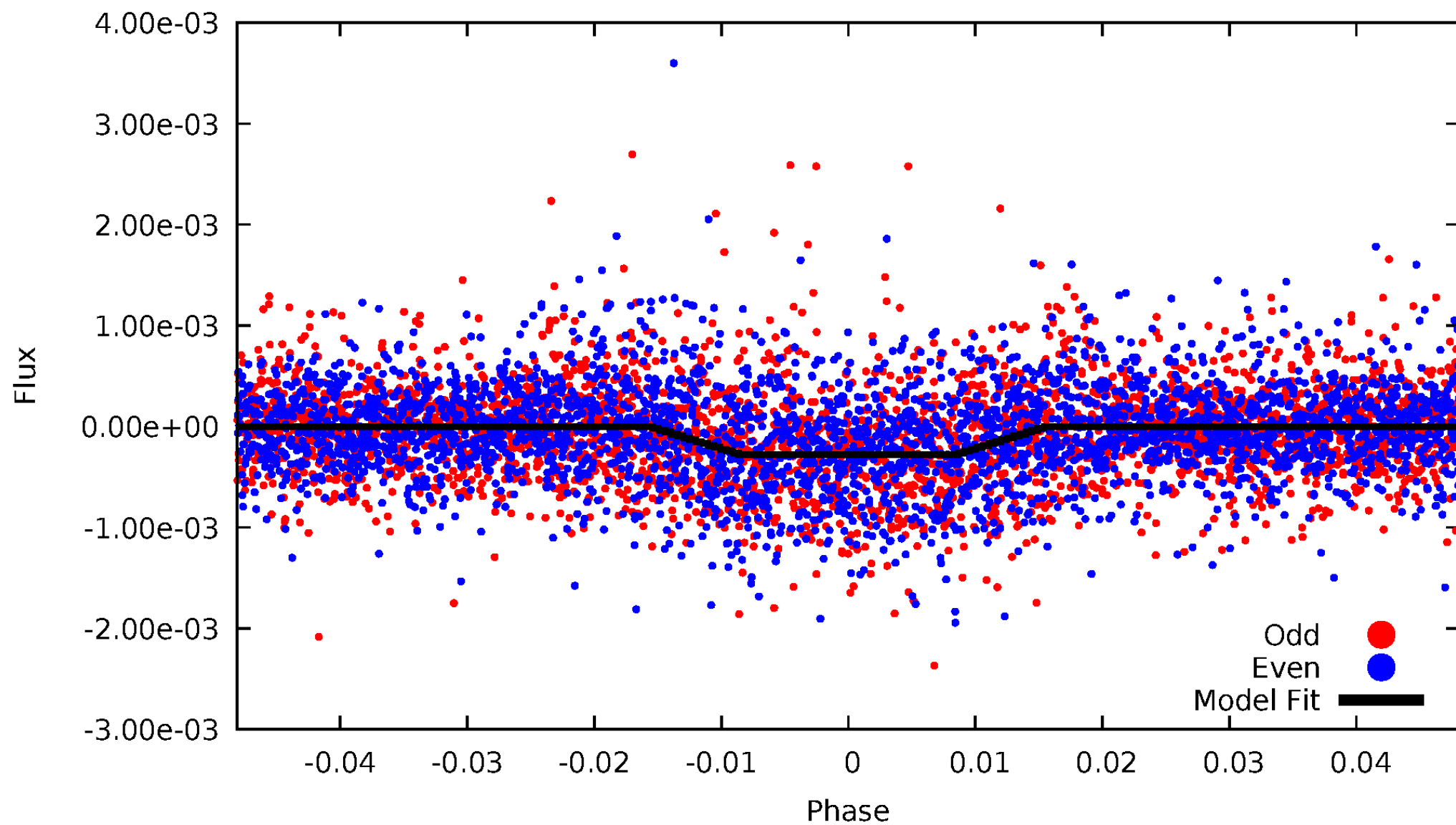
DV Odd/Even

TCE 011030475-01



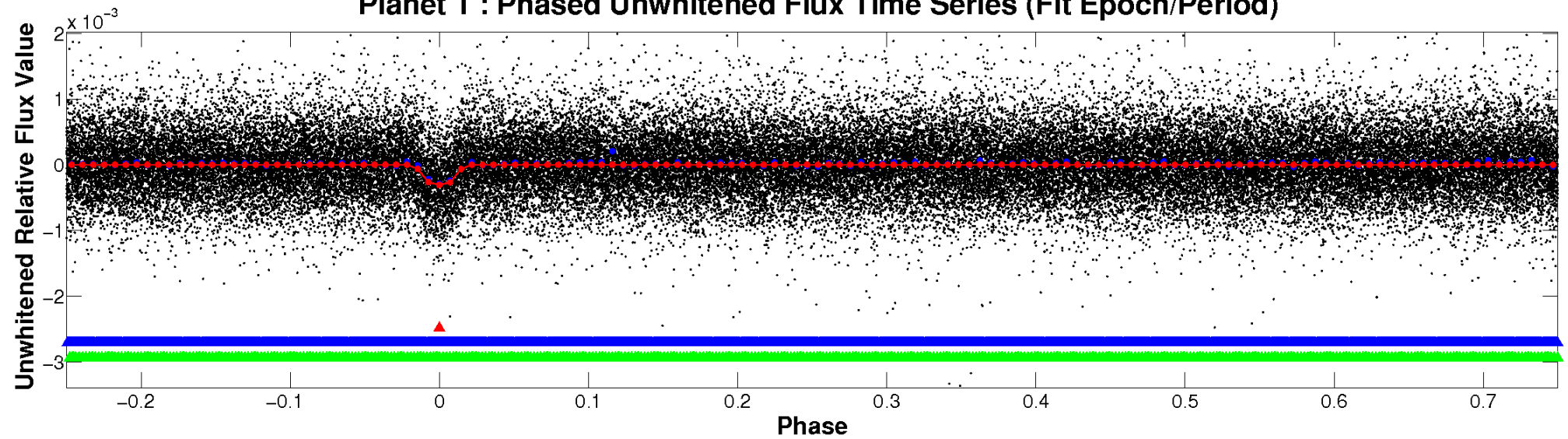
ALT Odd/Even

TCE 011030475-01

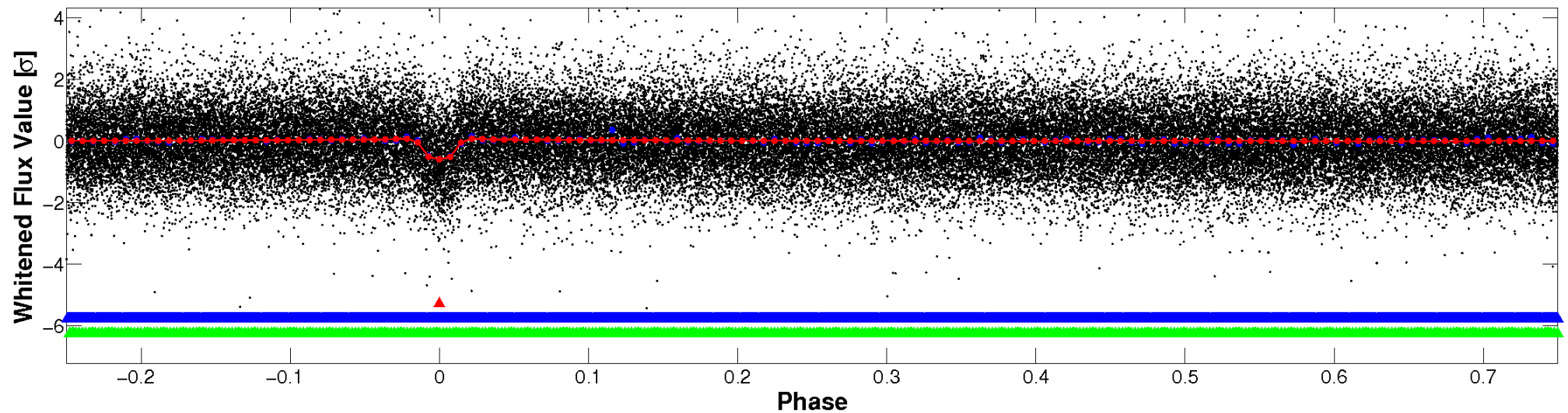


Non-Whitened Vs. Whitened Light Curve

Planet 1 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

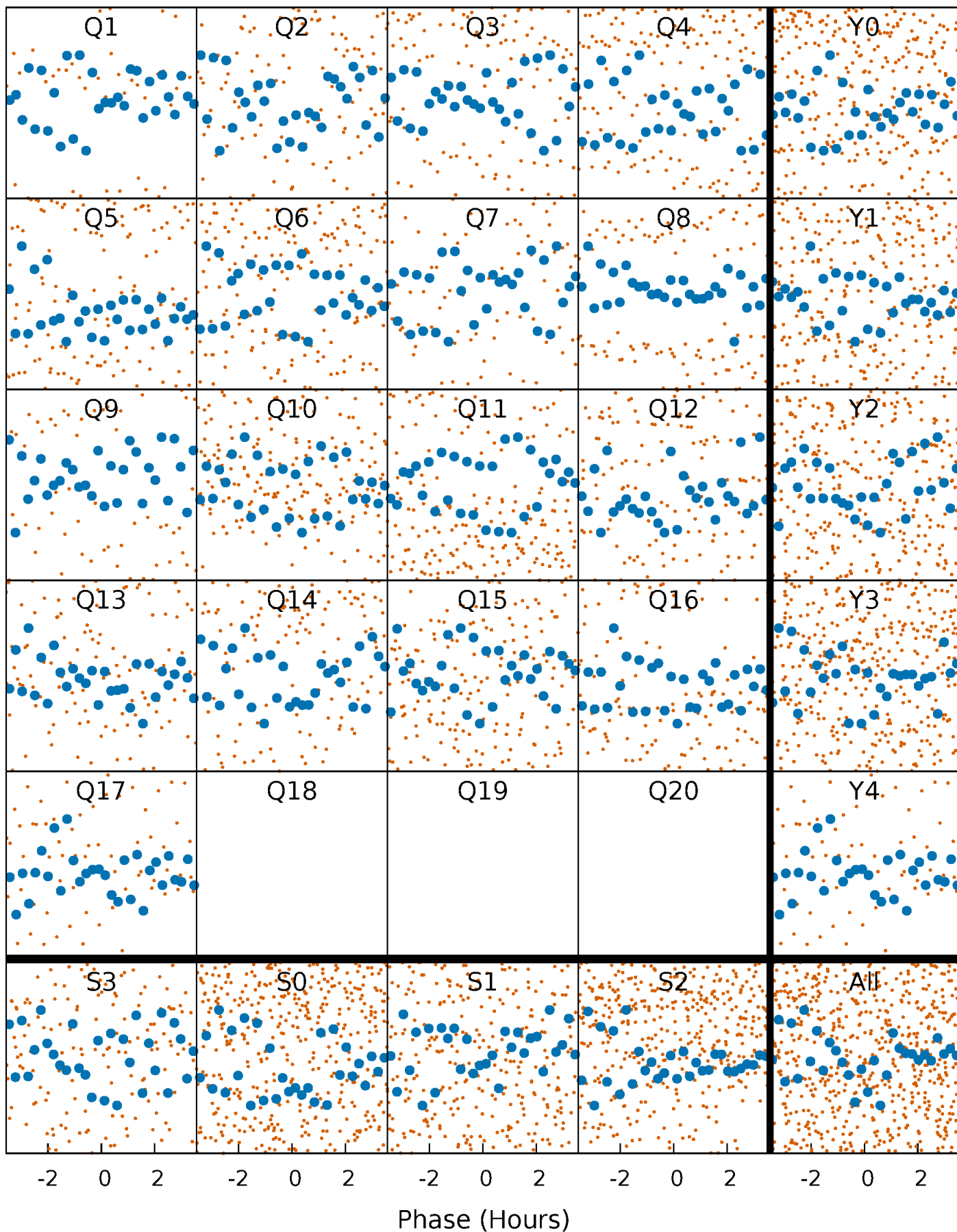


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



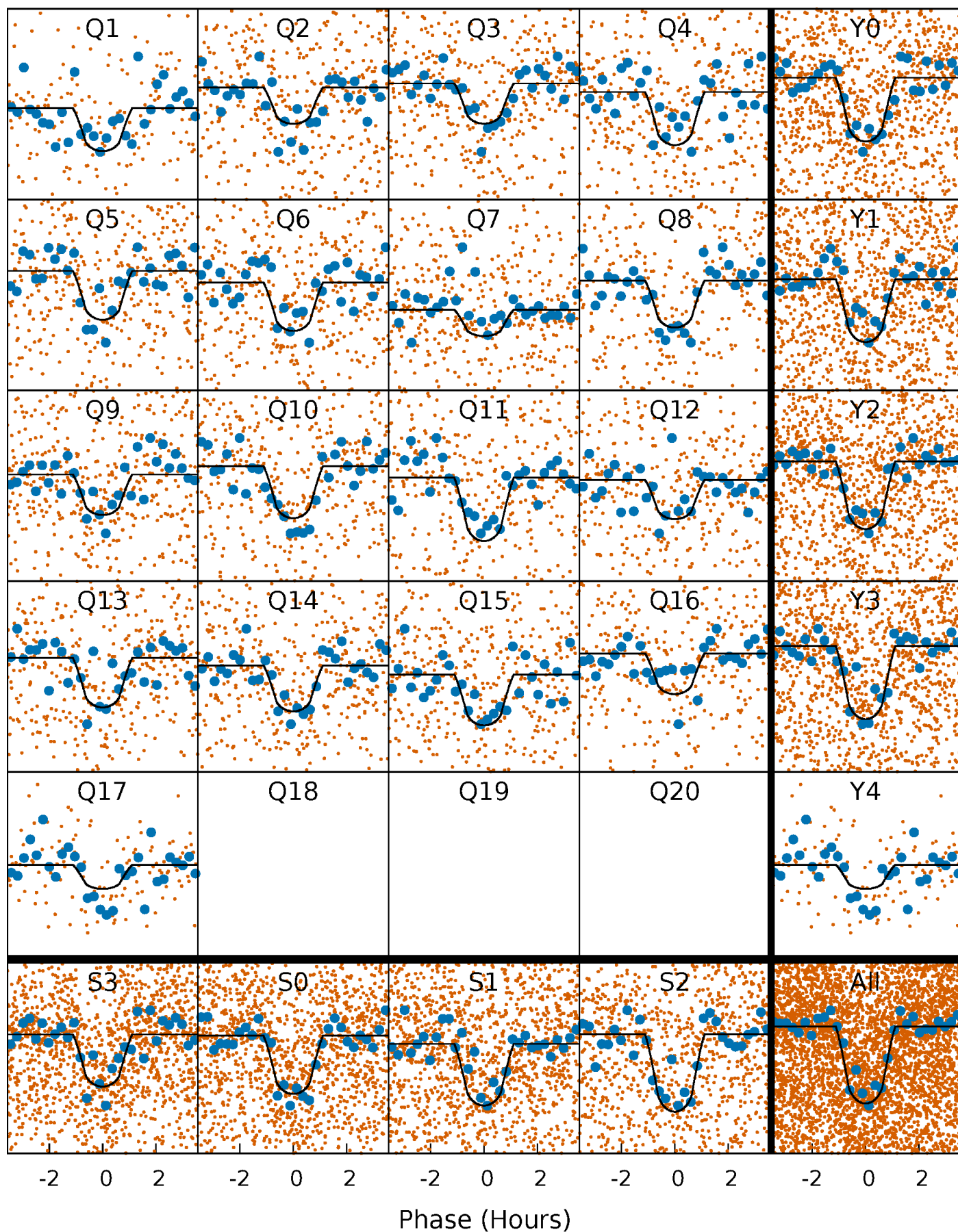
PDC Quarter-Phased Transit Curves

TCE 011030475-01 P= 2.818155 Days $T_0=132.249715$ (BKJD)



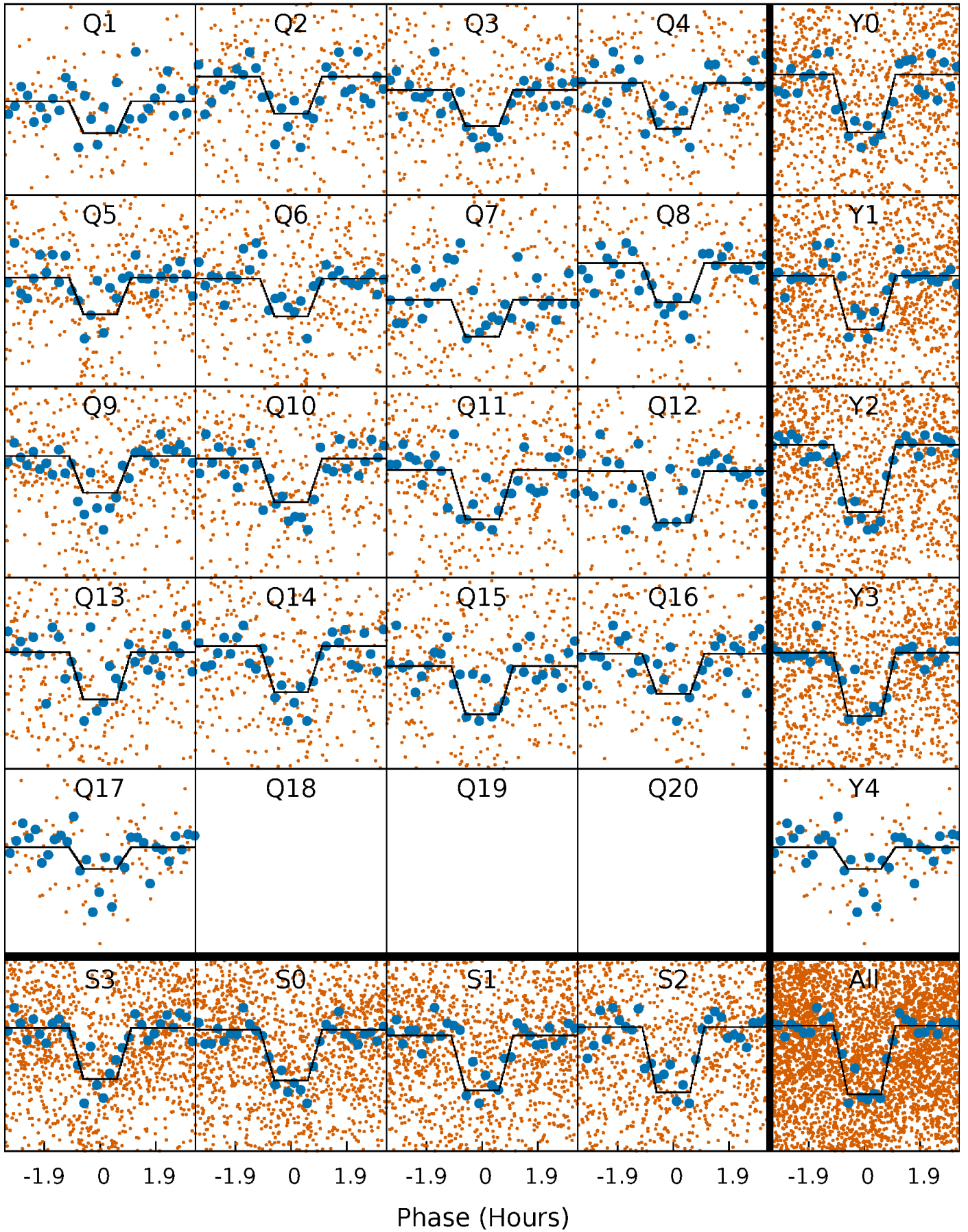
DV Quarter-Phased Transit Curves

TCE 011030475-01 P= 2.818155 Days $T_0=132.249715$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

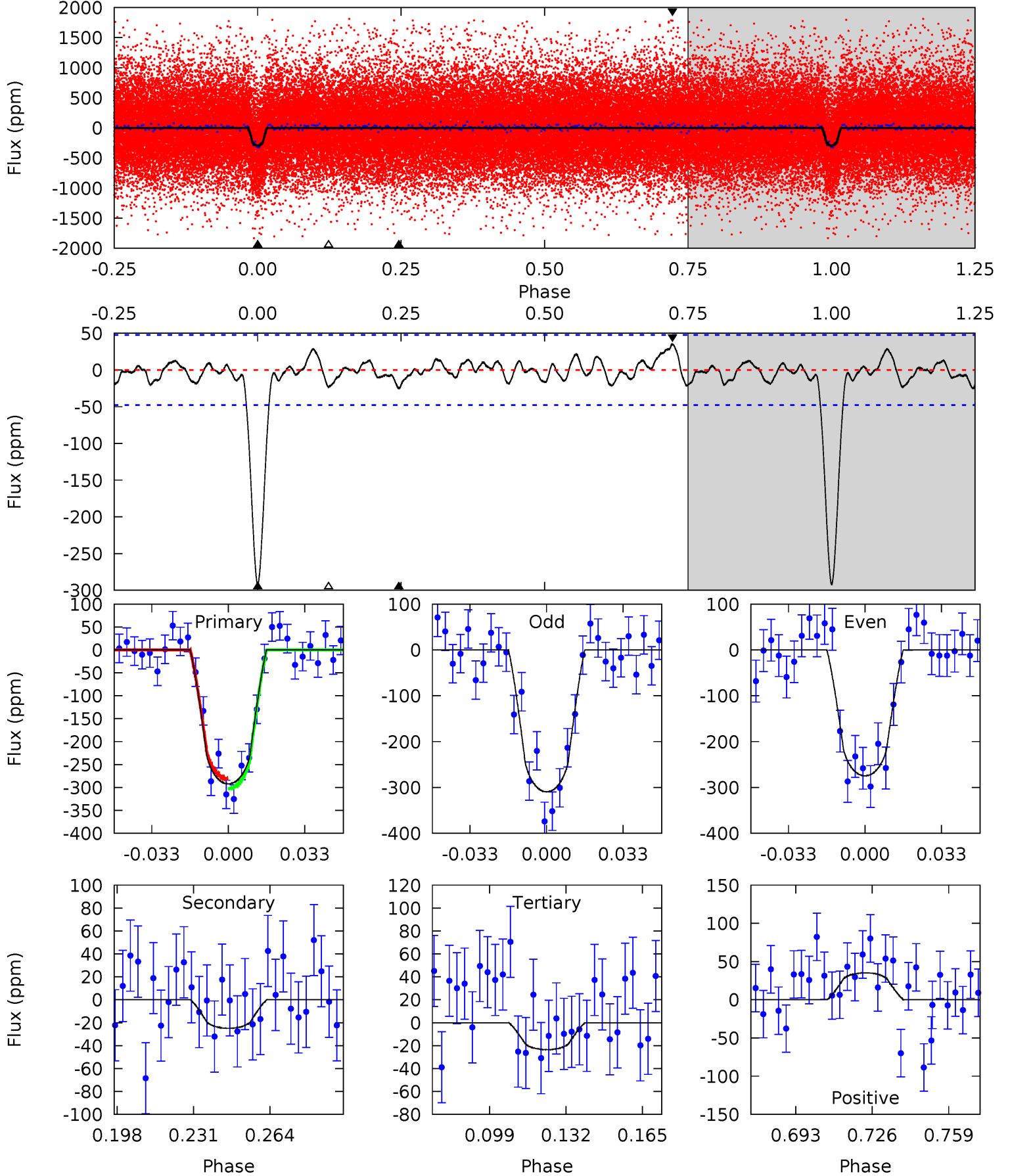
TCE 011030475-01 P= 2.818143 Days $T_0=132.253458$ (BKJD)



DV Model-Shift Uniqueness Test

011030475-01, P = 2.818155 Days, E = 129.431560 Days

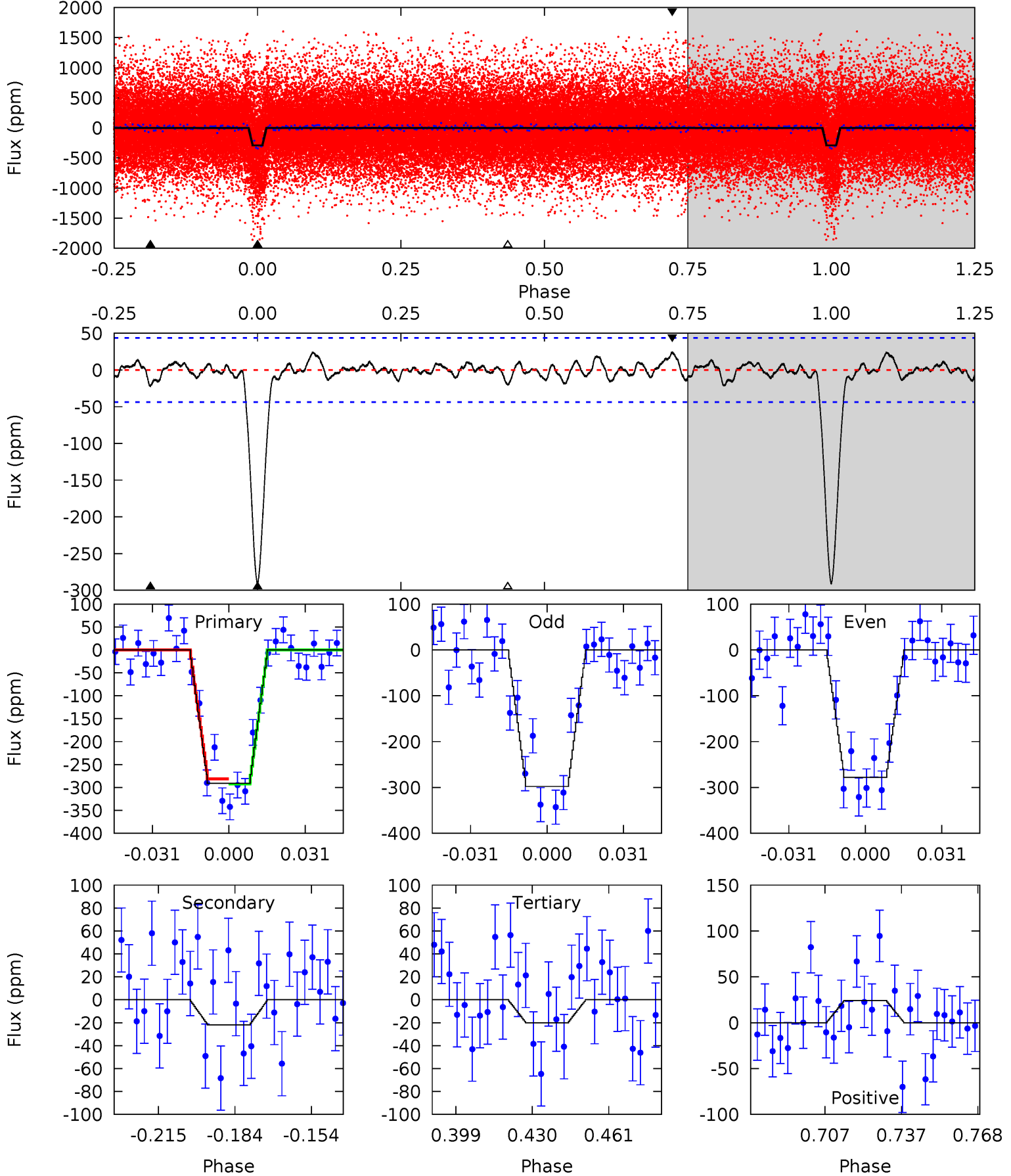
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
29.3	2.50	2.36	3.54	4.79	2.13	1.14	26.9	25.8	0.14	-1.04	1.75	0.90	0.11	1.06



Alt Model-Shift Uniqueness Test

011030475-01, P = 2.818143 Days, E = 129.435315 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
32.0	2.41	2.21	2.66	4.81	2.16	0.88	29.8	29.4	0.20	-0.24	1.09	1.03	0.08	0.62



Stellar Parameters For KIC 011030475

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5167^{+103}_{-103}	$4.555^{+0.036}_{-0.050}$	$-0.040^{+0.150}_{-0.150}$	$0.787^{+0.053}_{-0.043}$	$0.812^{+0.046}_{-0.046}$	$2.343^{+0.365}_{-0.380}$
	+2%/-2%	+1%/-1%	+375%/-375%	+7%/-5%	+6%/-6%	+16%/-16%
Source	SPE58	SPE58	SPE58	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 011030475-01 / KOI 2248.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-25 ± 10	$1.44^{+0.66}_{-0.67}$	1482^{+40}_{-36}	3307^{+807}_{-434}	$8.545^{+22.463}_{-5.175}$
Alt.	-22 ± 9	$1.48^{+0.67}_{-0.68}$	1485^{+38}_{-42}	3209^{+763}_{-413}	$7.089^{+18.587}_{-4.335}$

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

DV Centroid Data

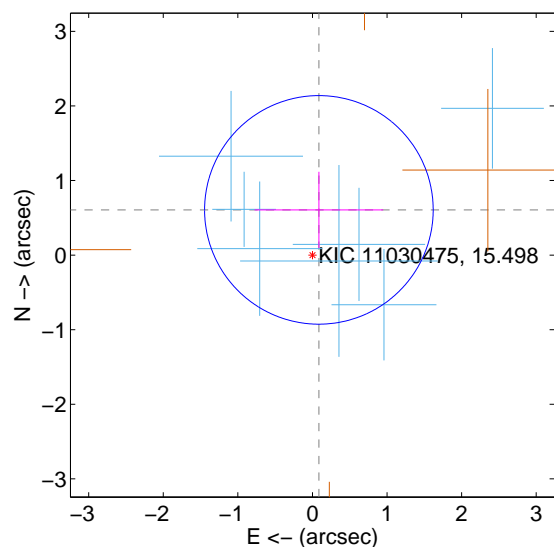
Supplemental centroid analysis for 011030475-01. Kepler magnitude: 15.50. Transit SNR 20.64

There are 7 quarters with good PRF difference image offsets

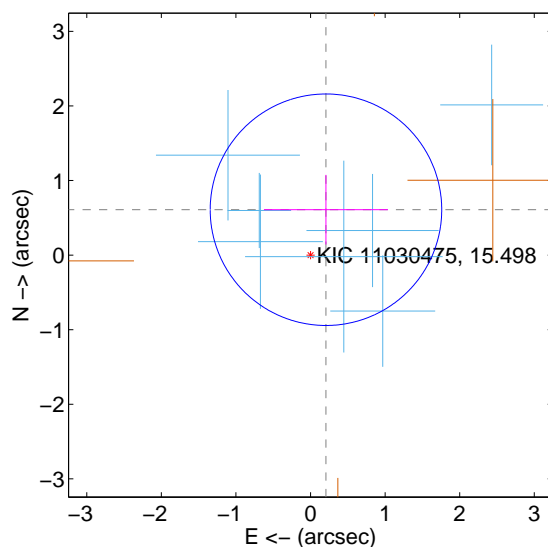
The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.612 ± 0.511	1.20	-0.086 ± 0.863	0.606 ± 0.512
PRF-fit source offset from KIC position	0.643 ± 0.517	1.24	-0.207 ± 0.832	0.608 ± 0.467
photometric centroid source offset	0.96 ± 0.58	1.64	-0.64 ± 0.59	0.71 ± 0.58

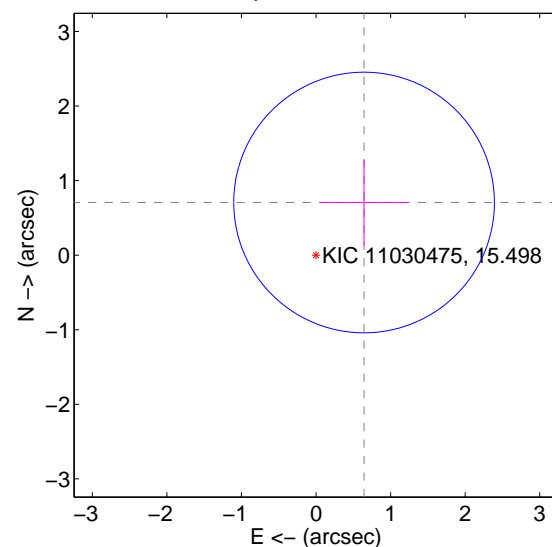
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

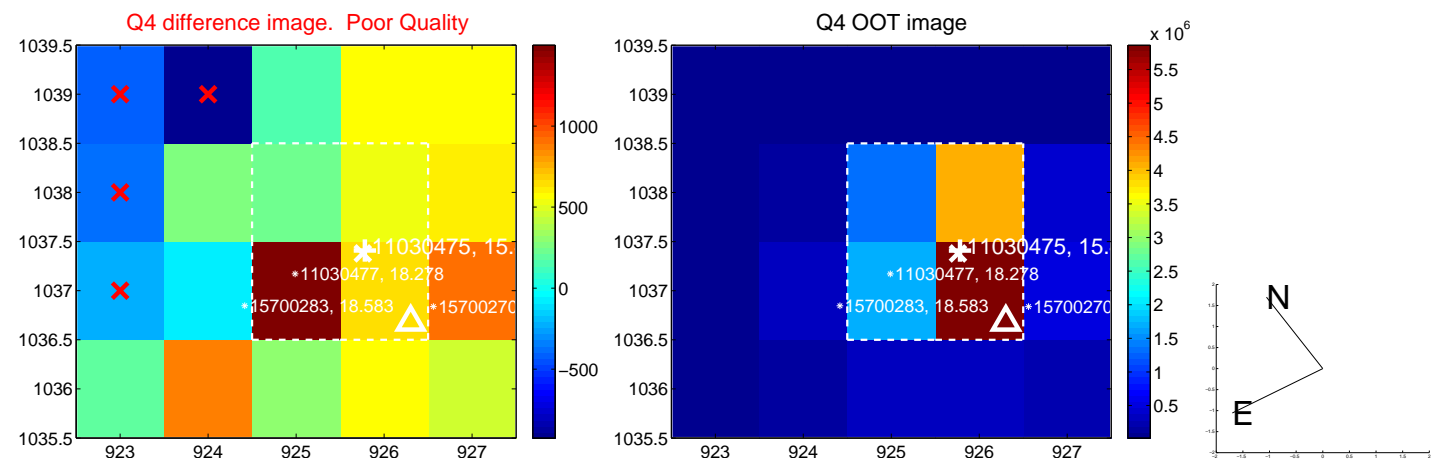
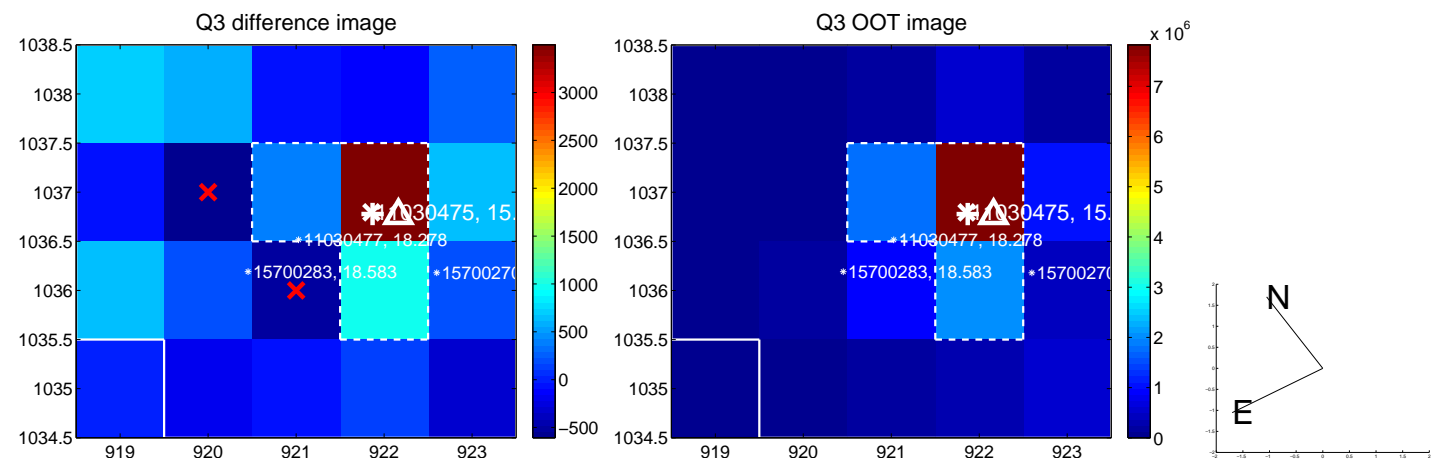
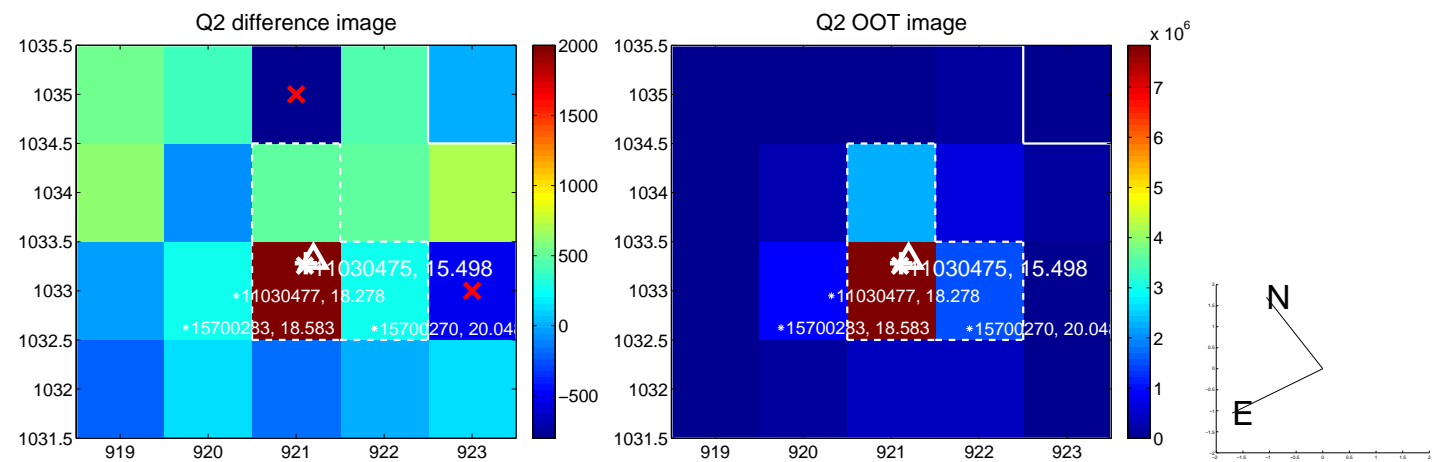
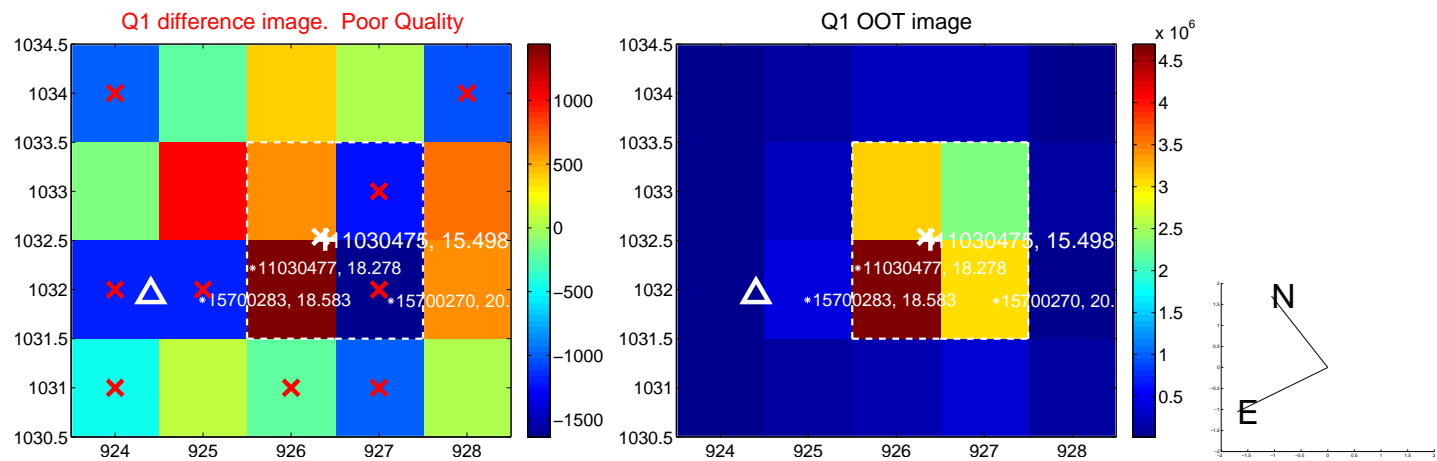


offset from photometric centroids

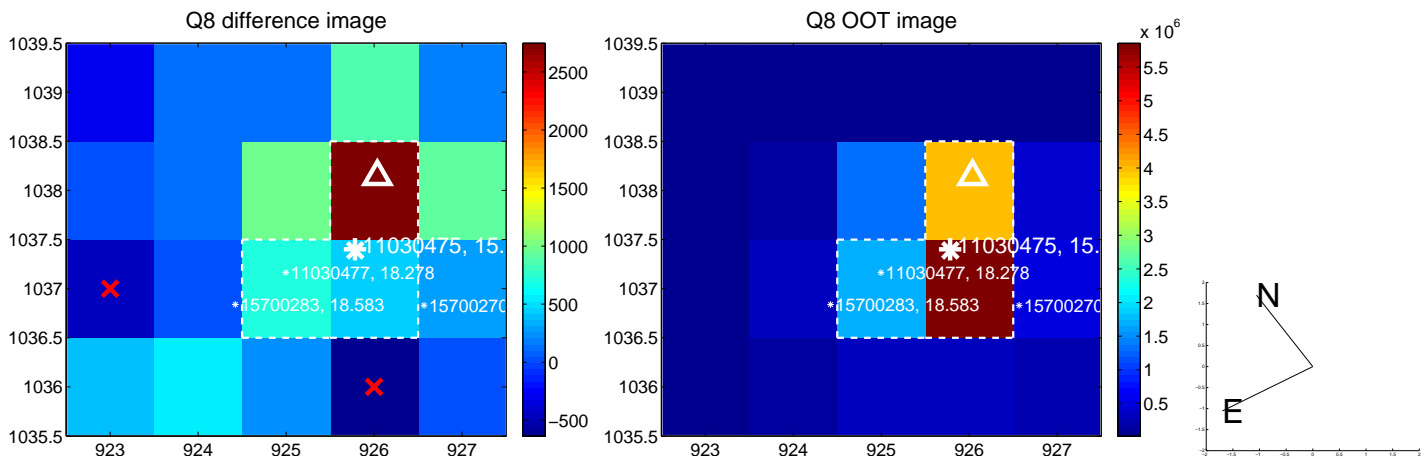
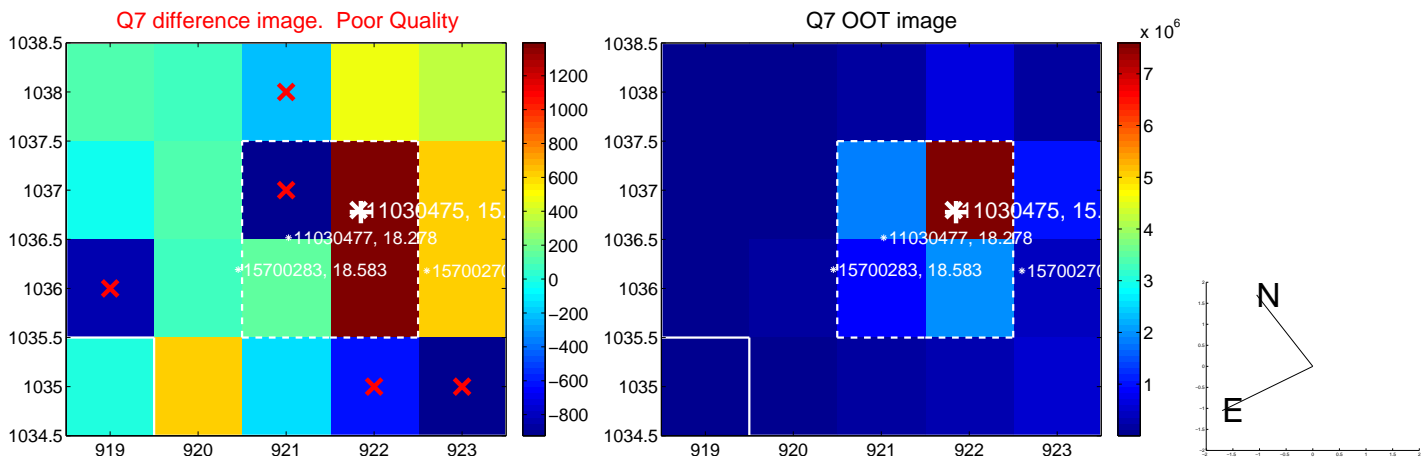
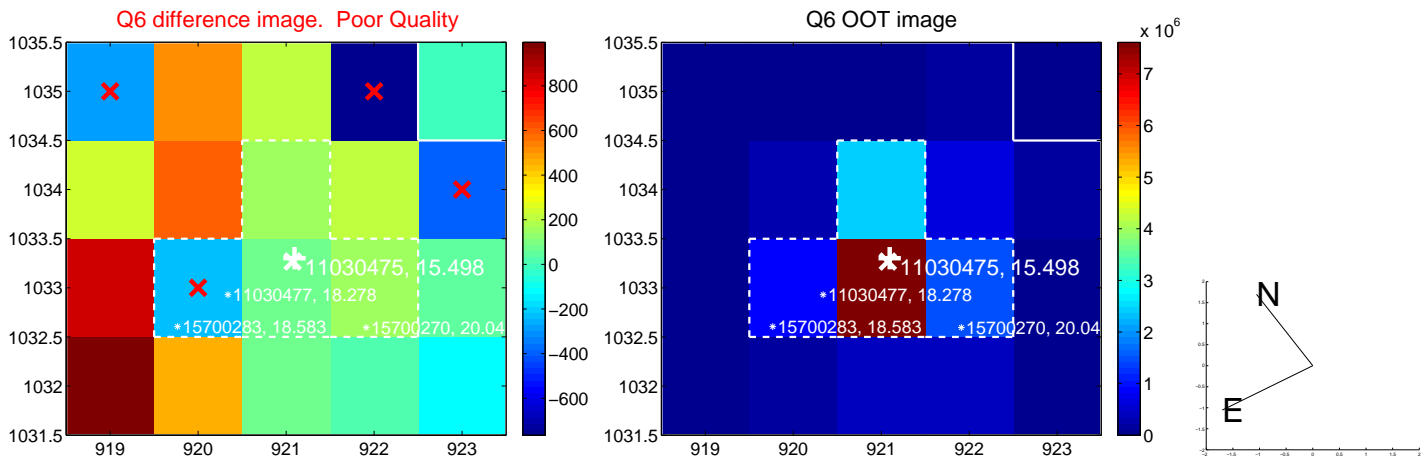
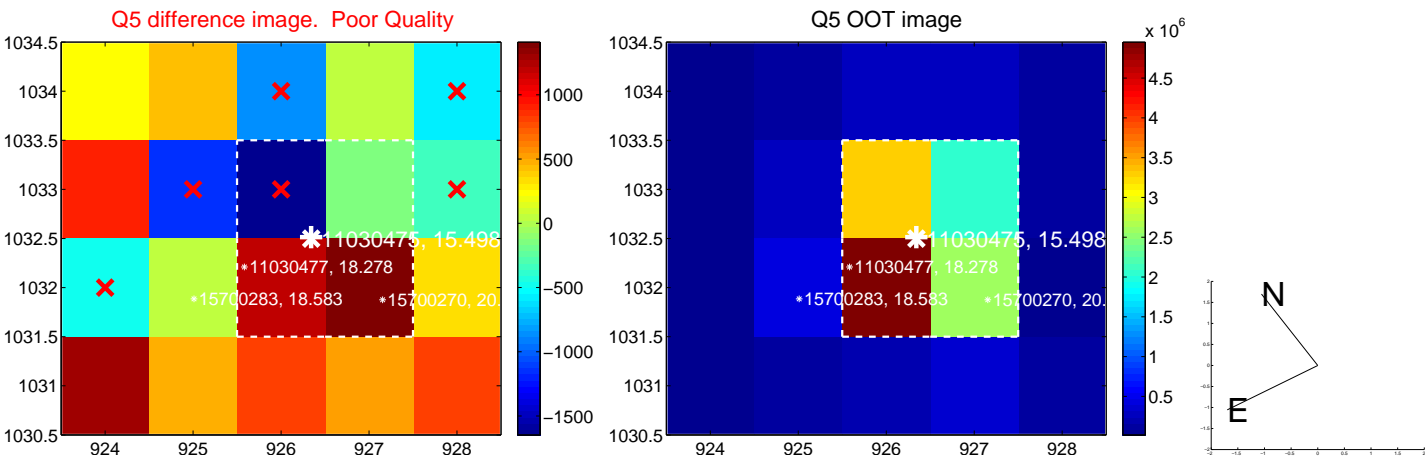


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

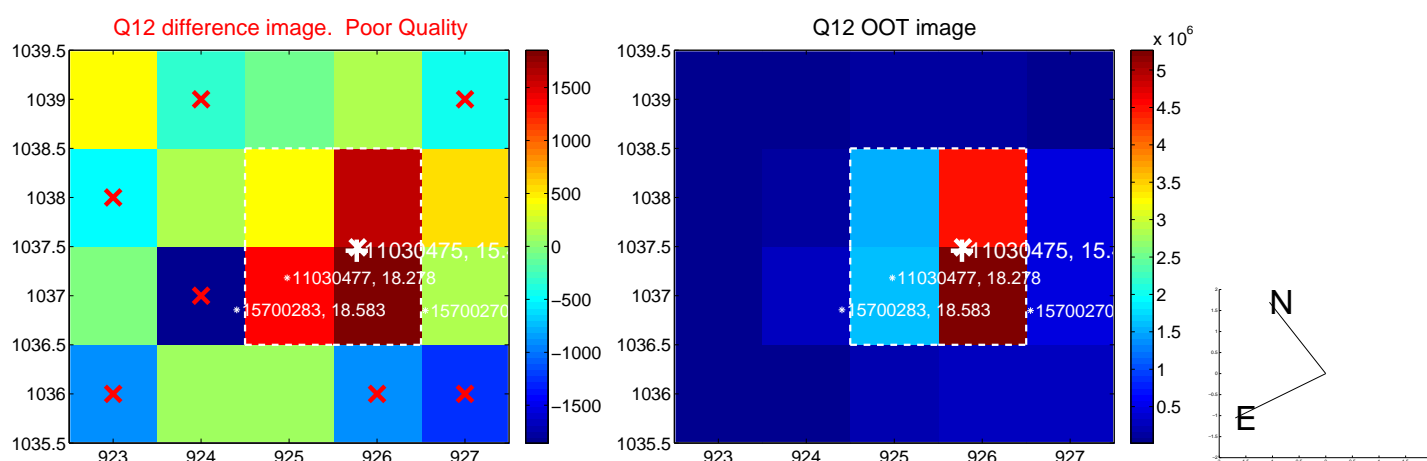
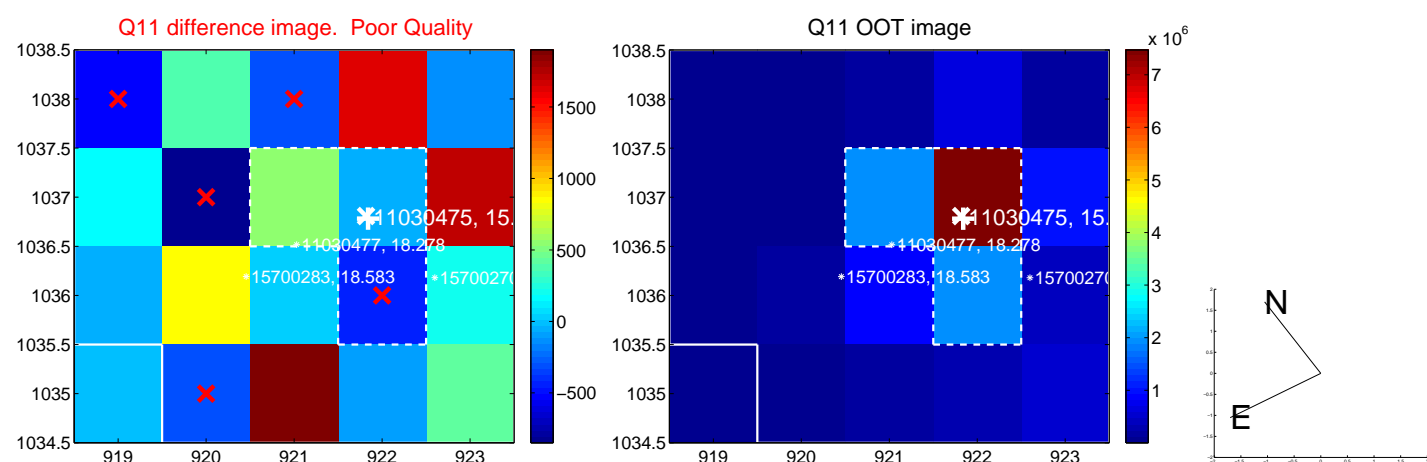
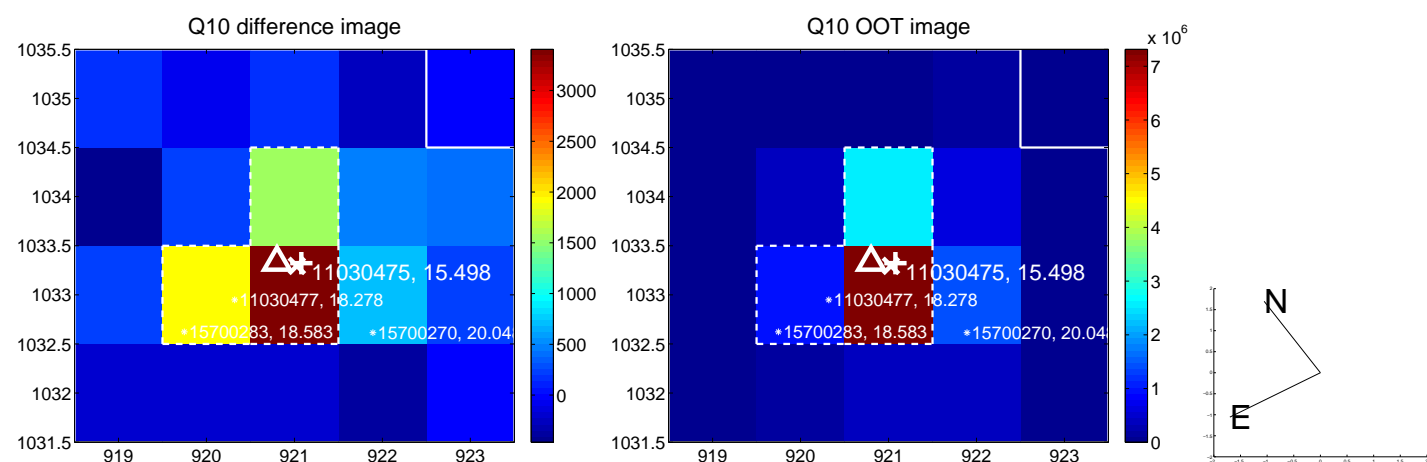
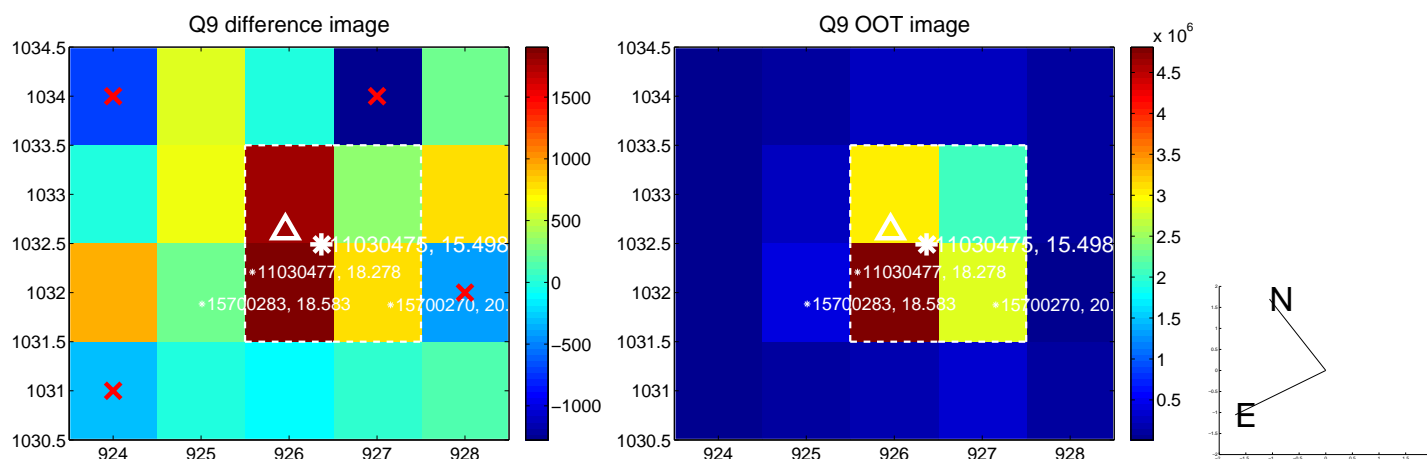
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



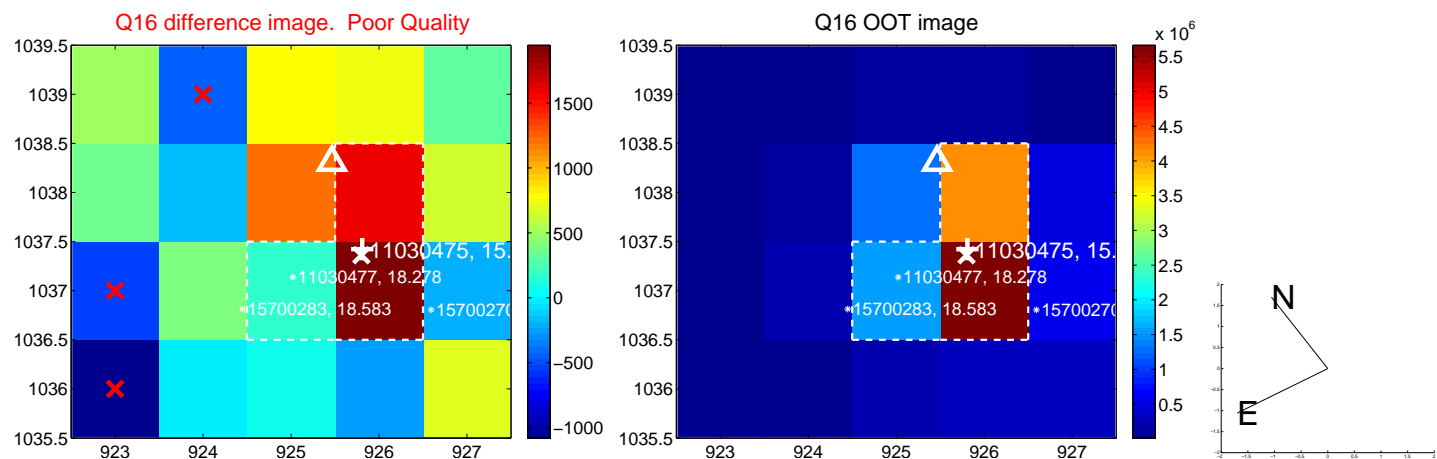
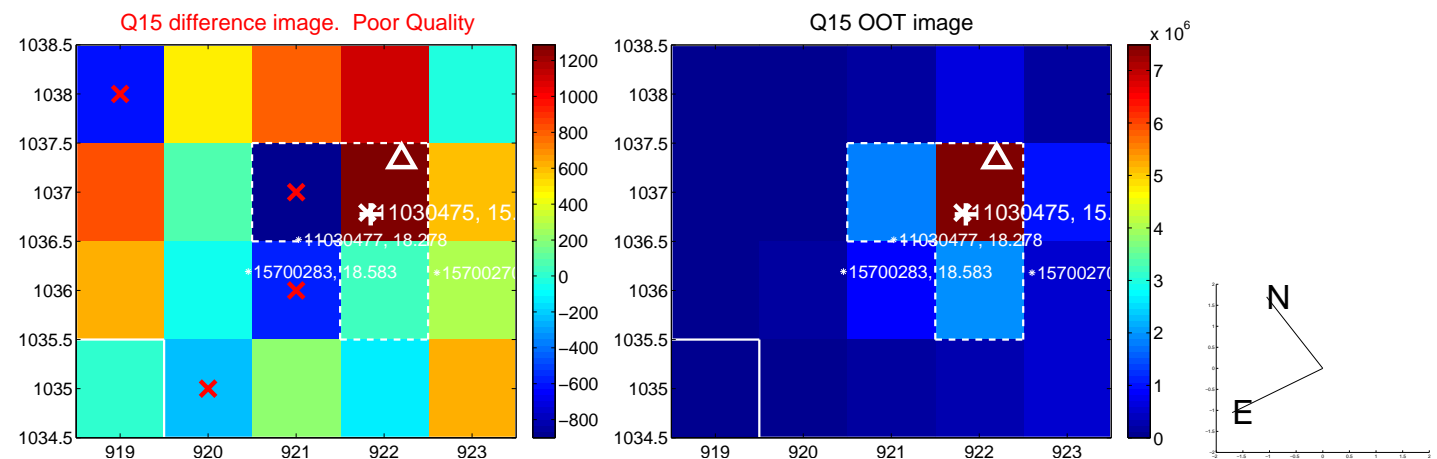
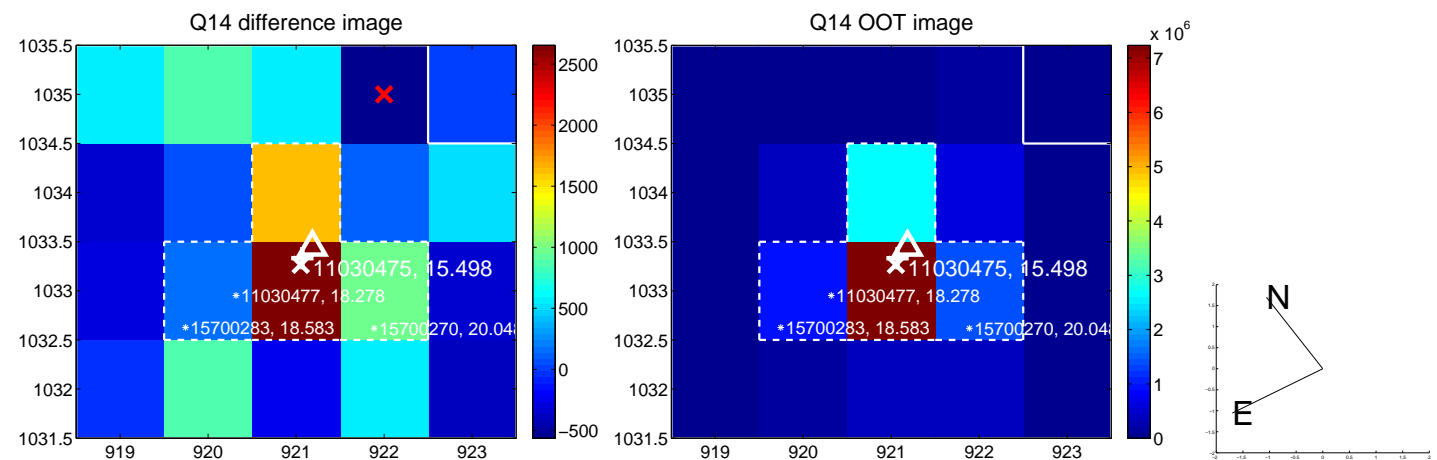
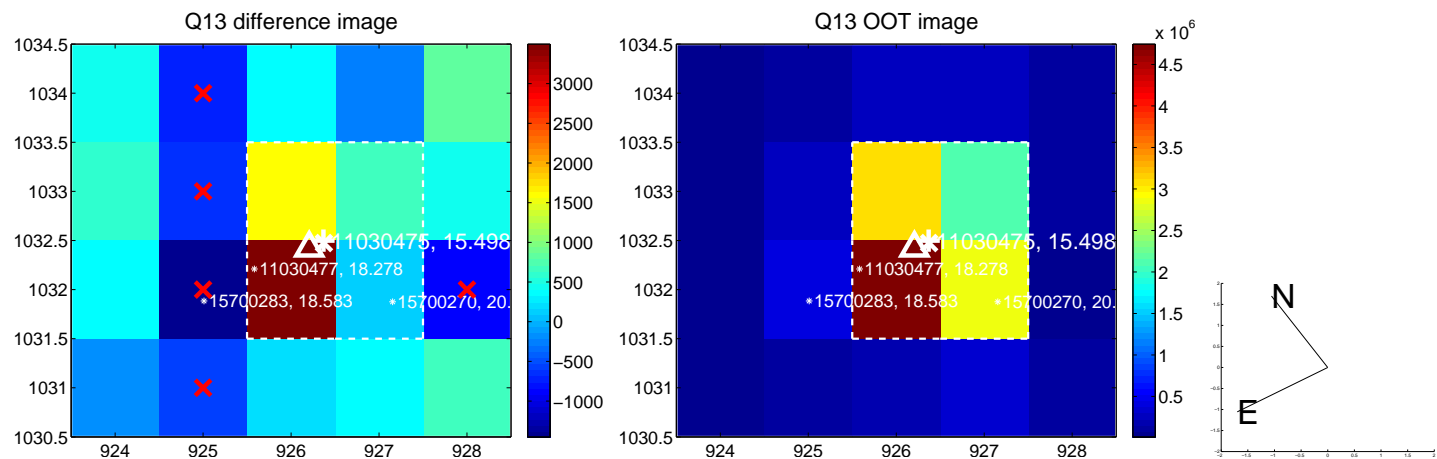
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

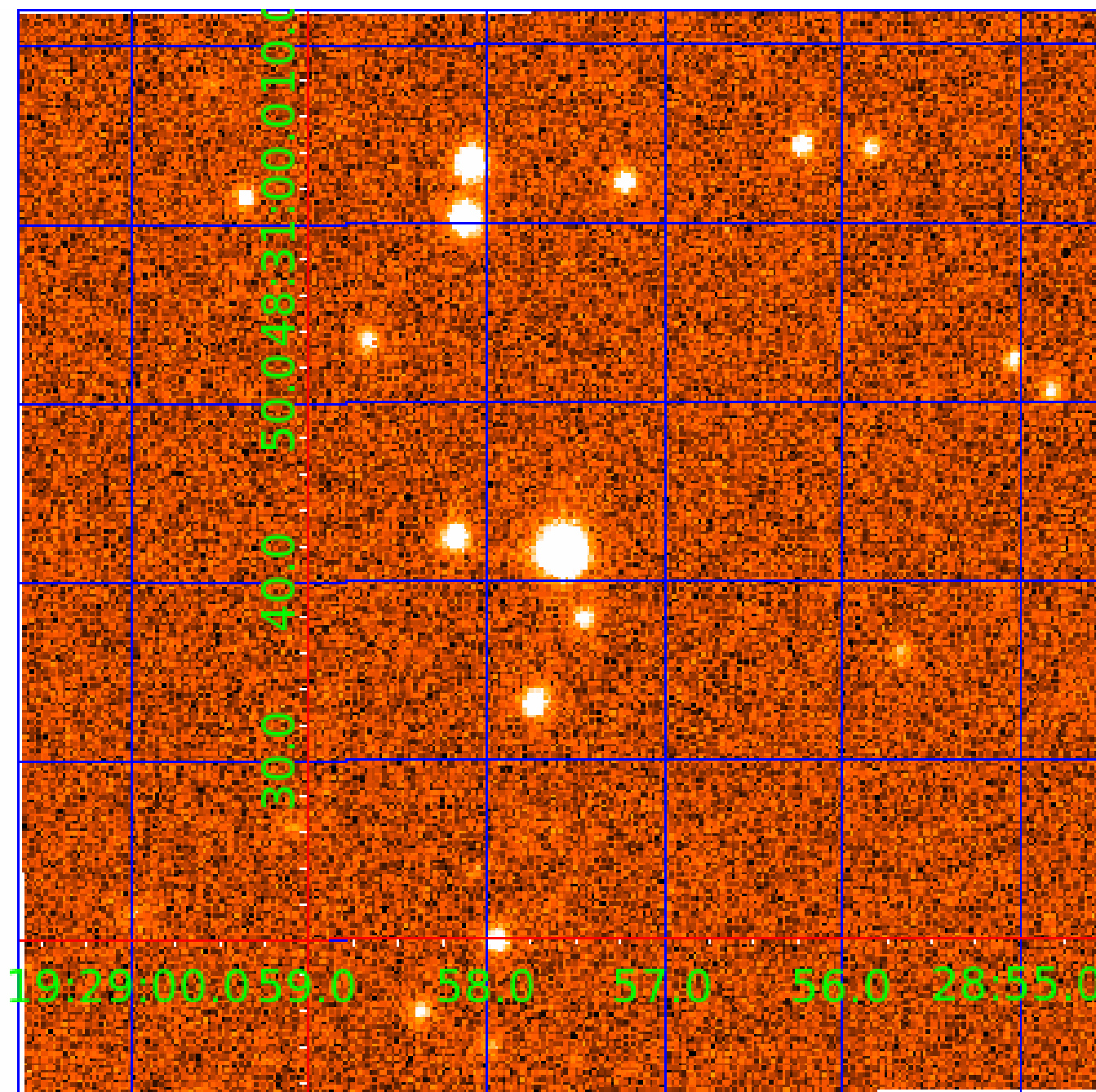


white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 011030475

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
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Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
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011030475-02	OBS	PC	0.99	0	0	0	0	NO_COMMENT
011030475-03	OBS	PC	0.99	0	0	0	0	NO_COMMENT

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

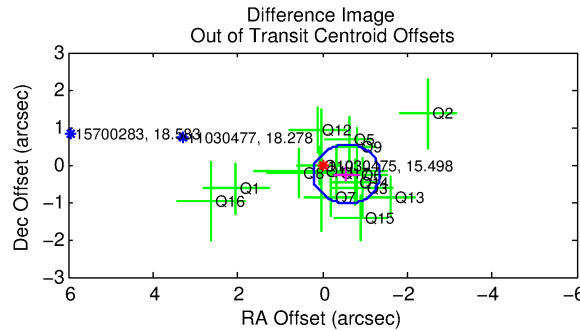
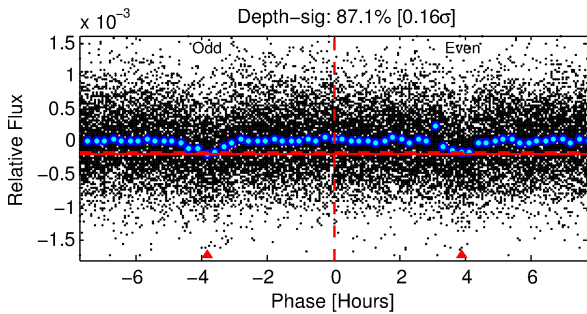
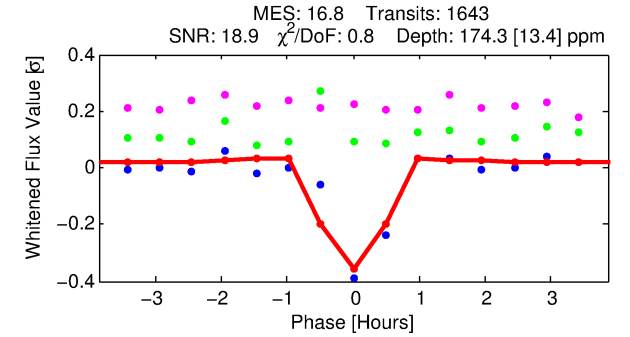
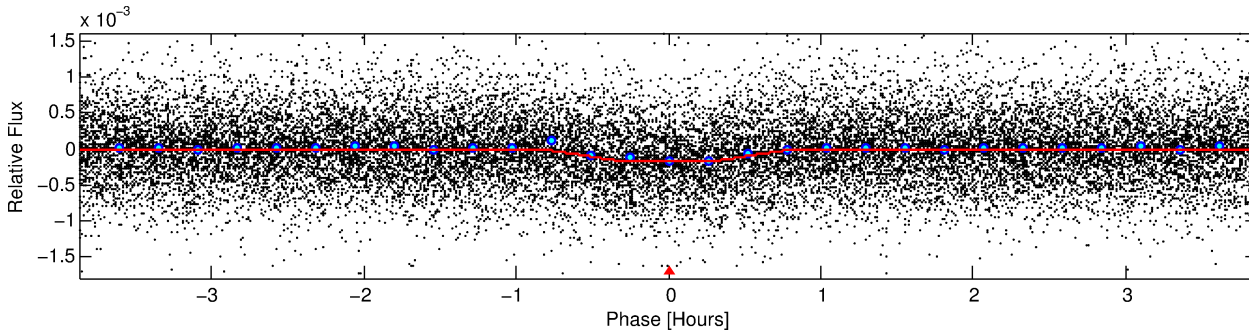
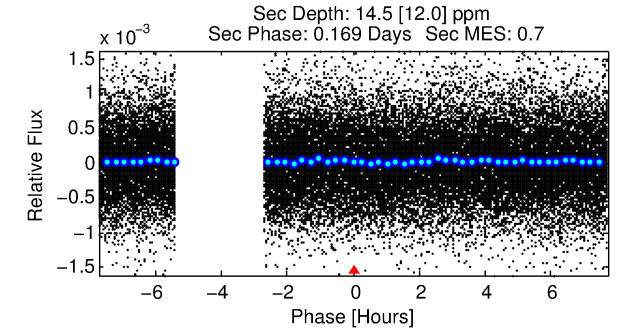
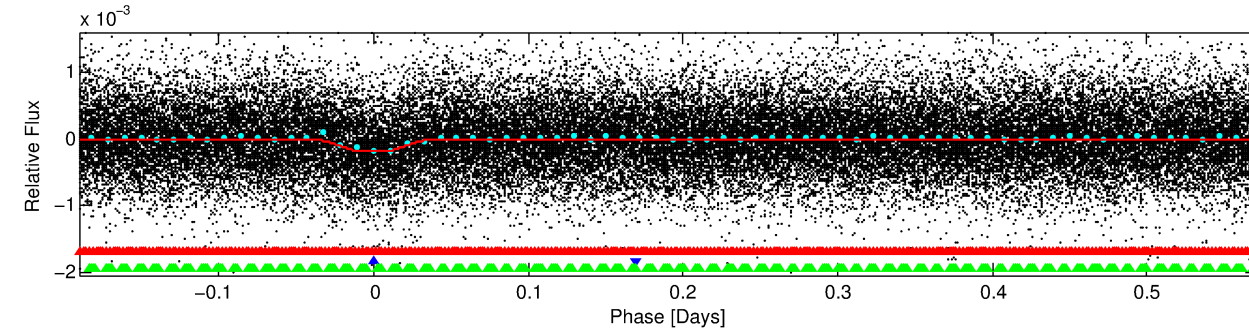
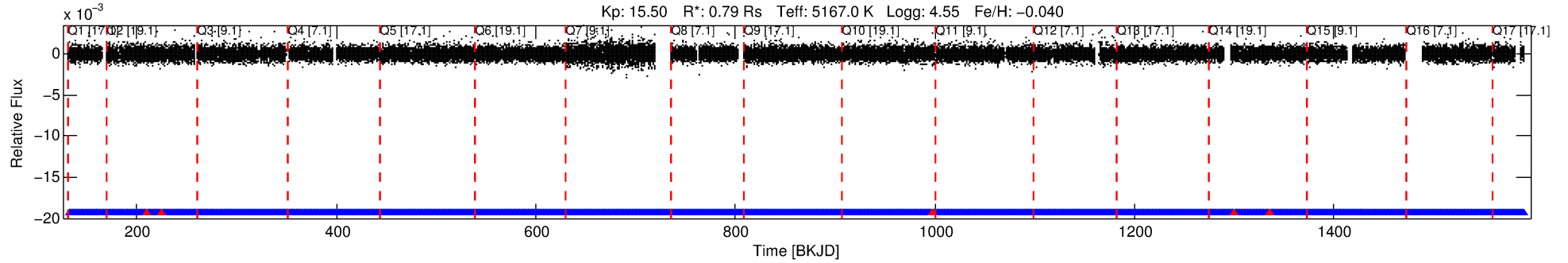
Ephemeris Match Information For 011030475-02

No Significant Match Found

DV One-Page Summary

KIC: 11030475 Candidate: 2 of 3 Period: 0.762 d

KOI: K02248.03 Corr: 0.916



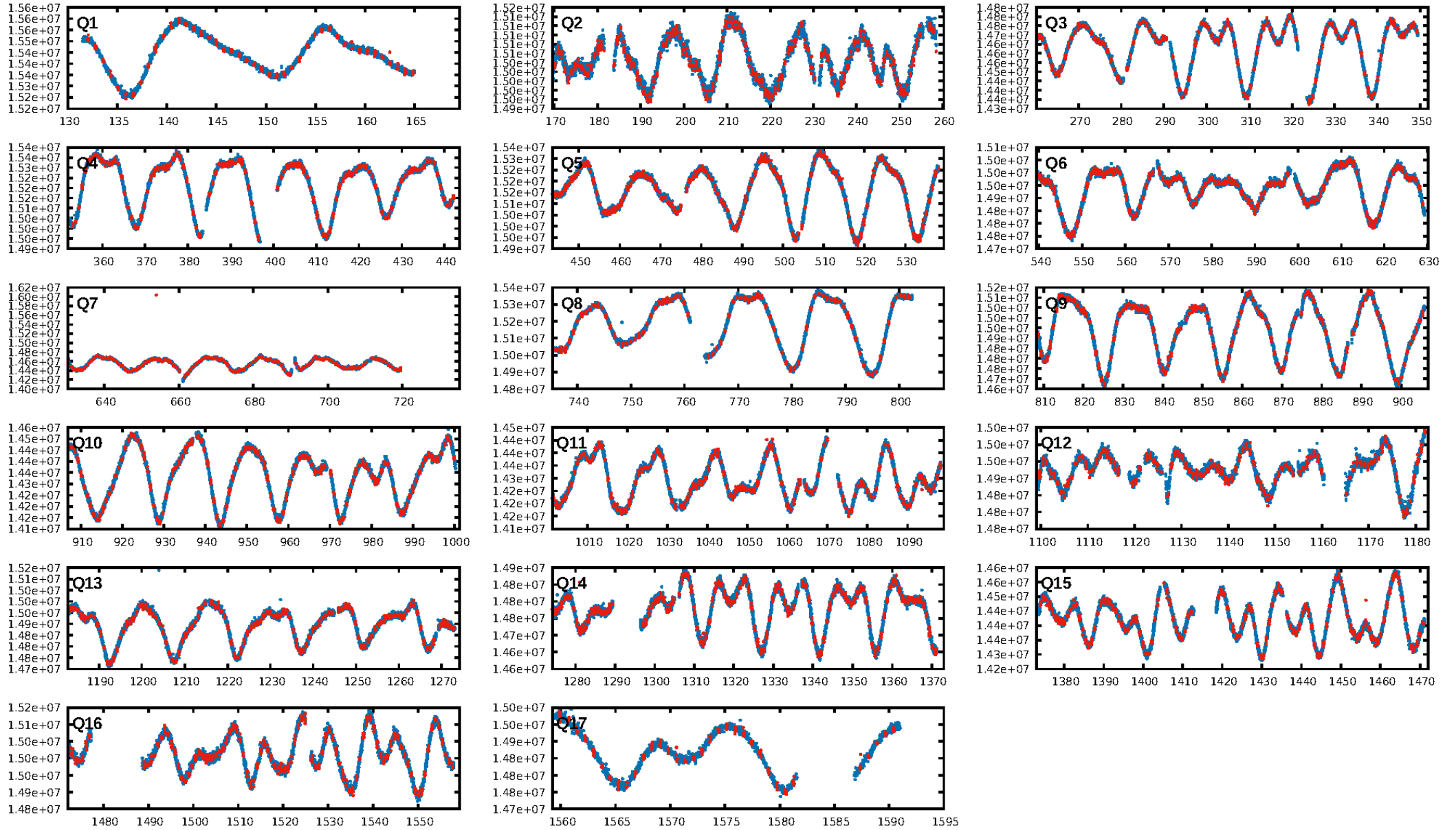
DV Fit Results:

Period = 0.76195 [0.00001] d
Epoch = 132.0296 [0.0010] BKJD
Rp/R* = 0.0147 [0.0063]
a/R* = 2.35 [3.39]
b = 0.90 [0.40]
Seff = 1705.79 [203.73]
Teff = 1639 [49] K
Rp = 1.26 [0.55] Re
a = 0.0152 [0.0009] AU
Ag = 1.17 [1.40] [0.12σ]
Teffp = 2635 [789] K [1.26σ]

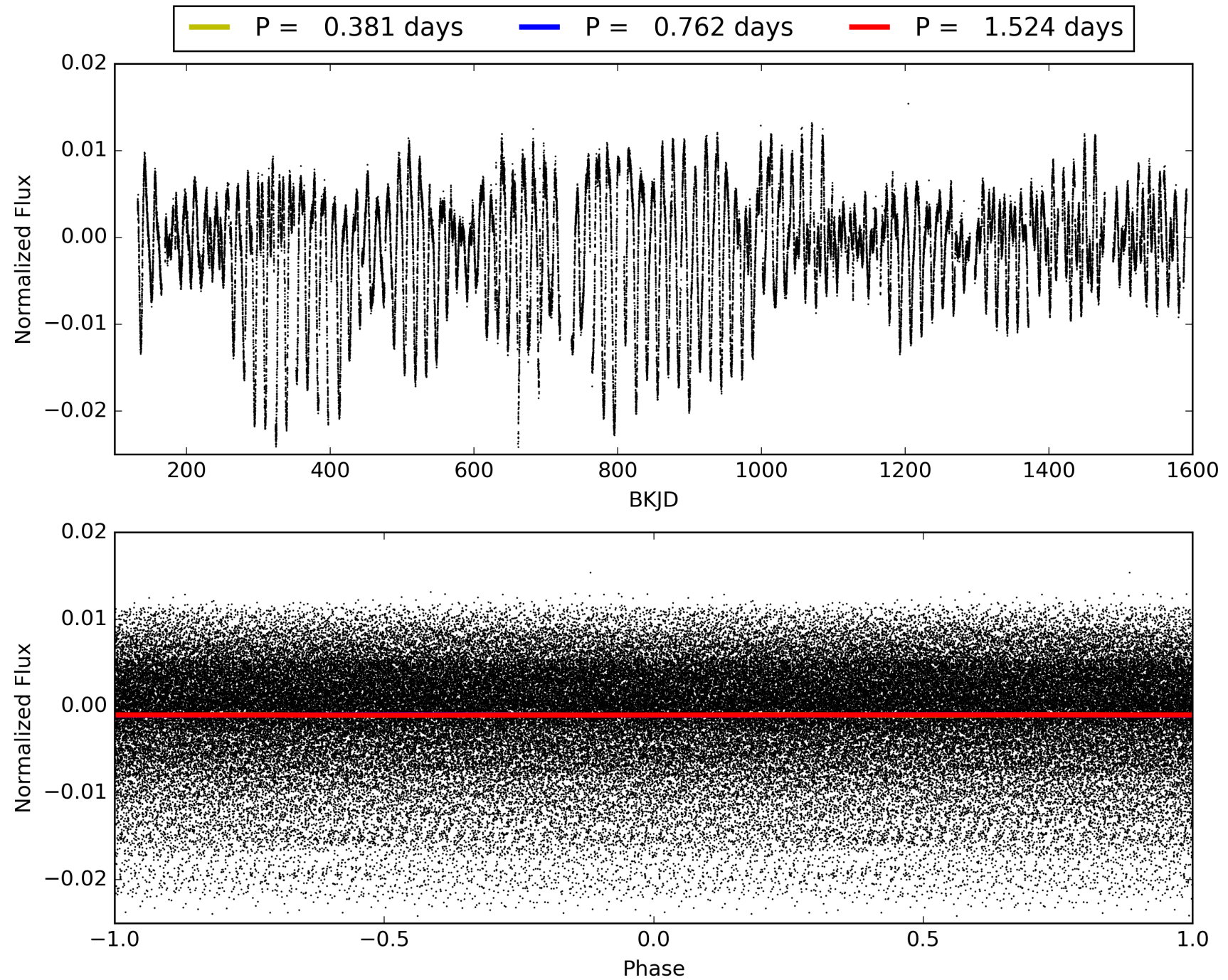
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [25.38σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 4.99e-62
RollingBand-fgt: 1.00 [1564/1569]
GhostDiagnostic-chr: -10.97
Centroid-sig: 22.5%
Centroid-so: 0.600 arcsec [0.93σ]
OotOffset-rm: 0.622 arcsec [2.37σ]
KicOffset-rm: 0.665 arcsec [2.54σ]
OotOffset-st: 4/4/3/5 [16]
KicOffset-st: 4/4/3/5 [16]
DiffImageQuality-fgm: 0.81 [13/16]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 011030475-02, PDC Light Curves

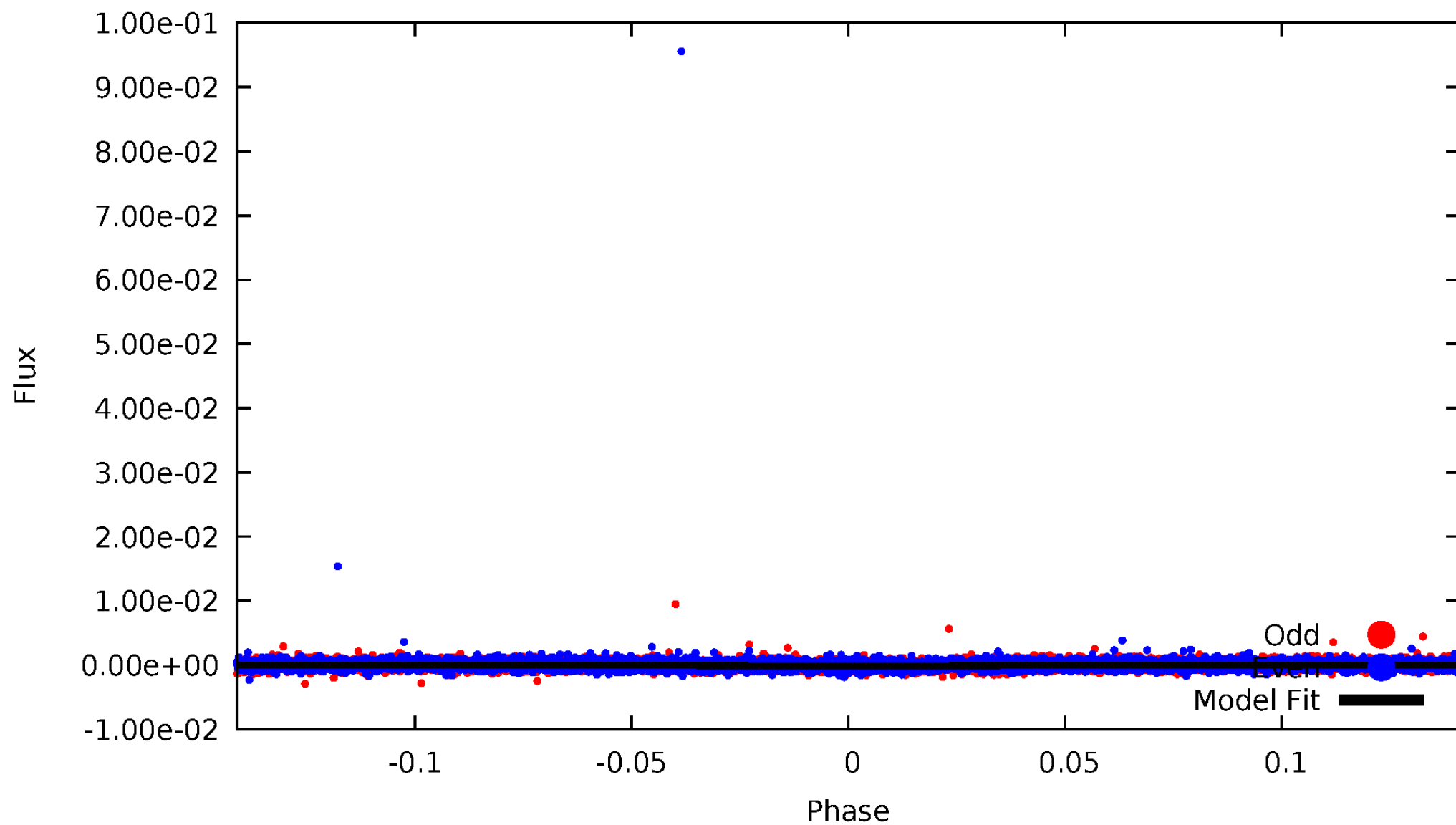


TCE 011030475-02



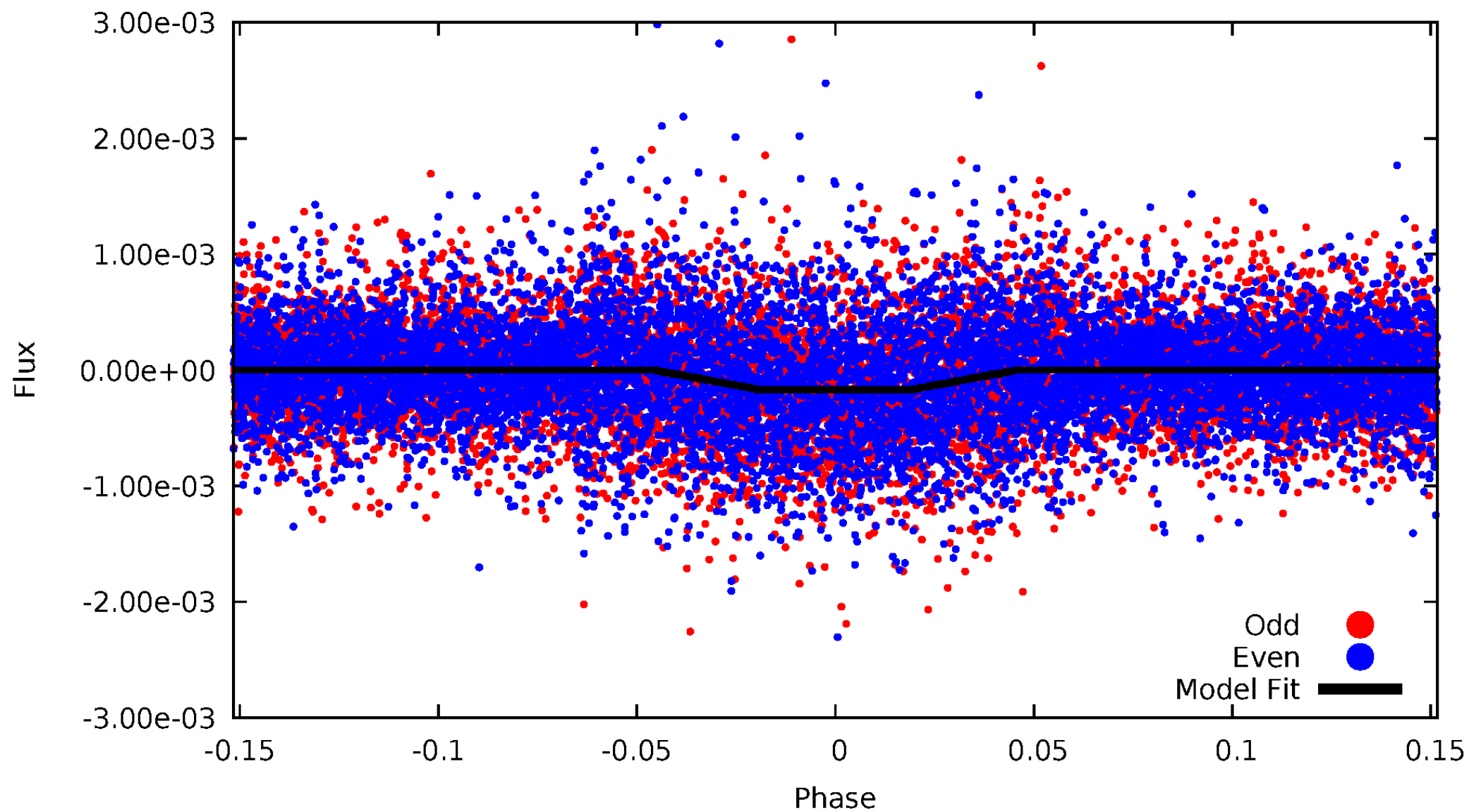
DV Odd/Even

TCE 011030475-02



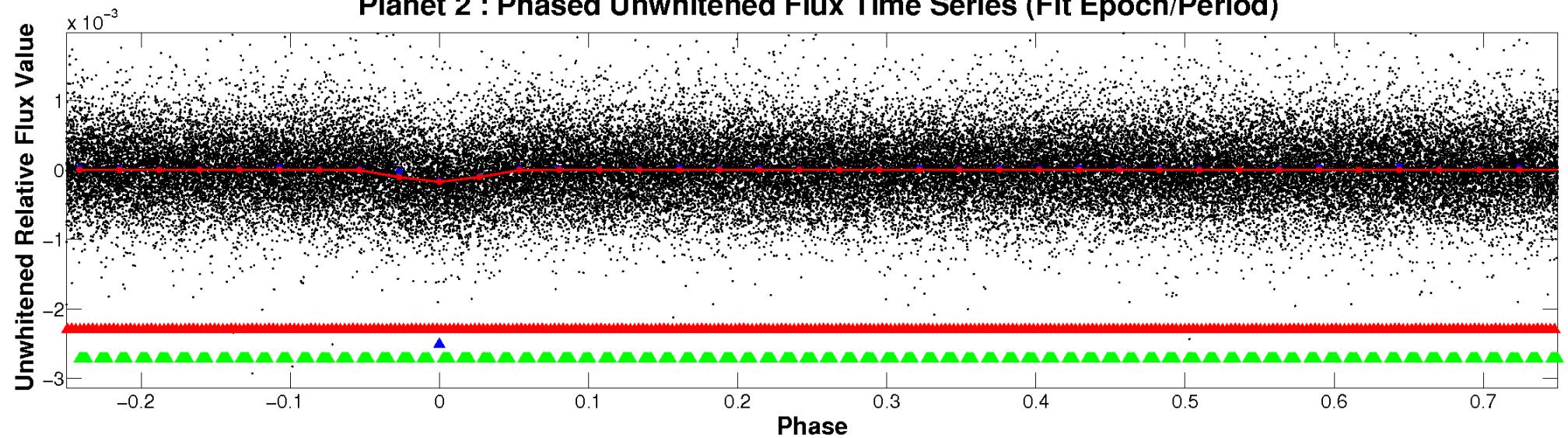
ALT Odd/Even

TCE 011030475-02

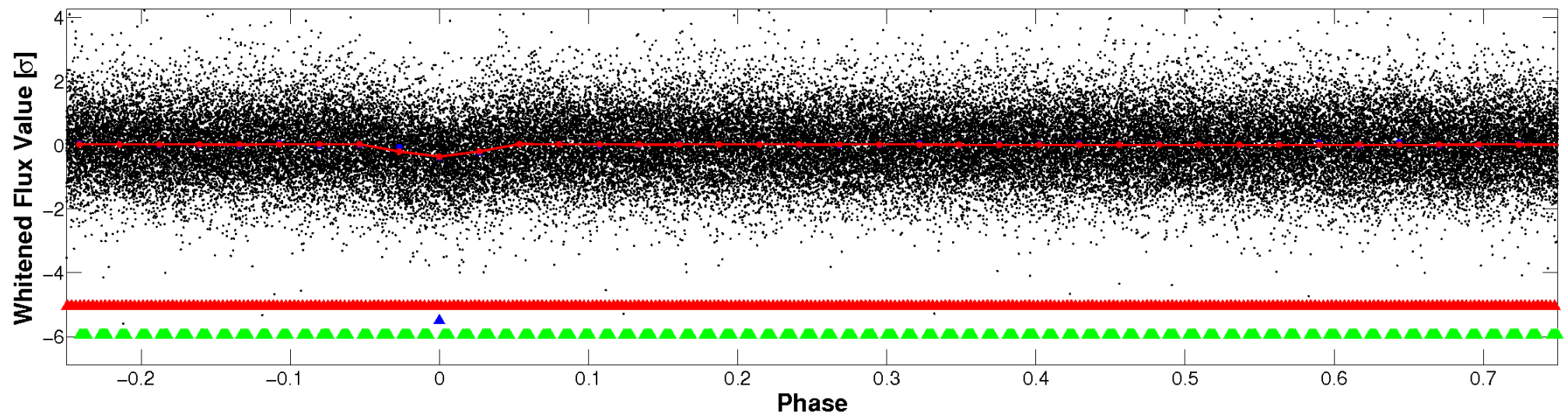


Non-Whitened Vs. Whitened Light Curve

Planet 2 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

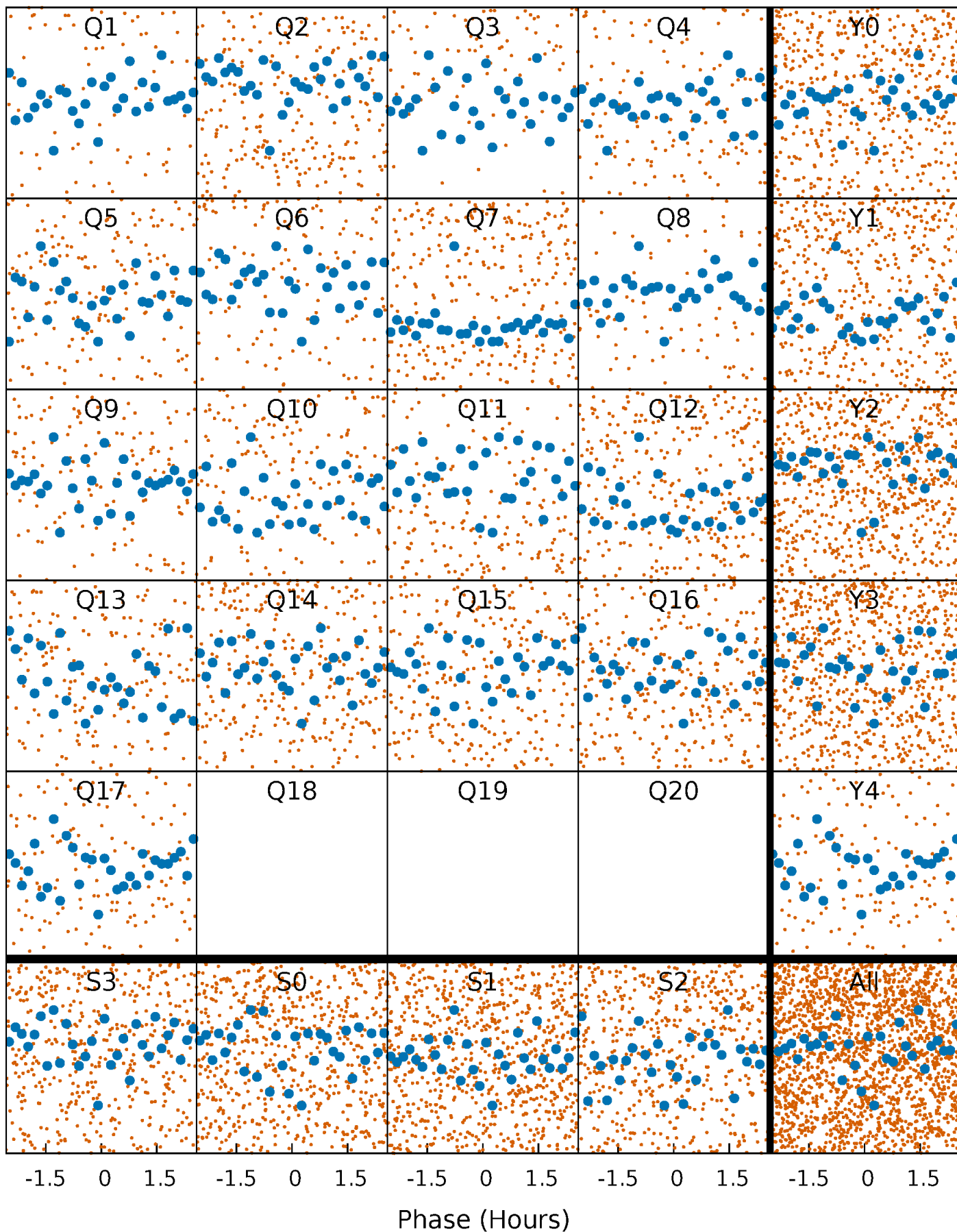


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



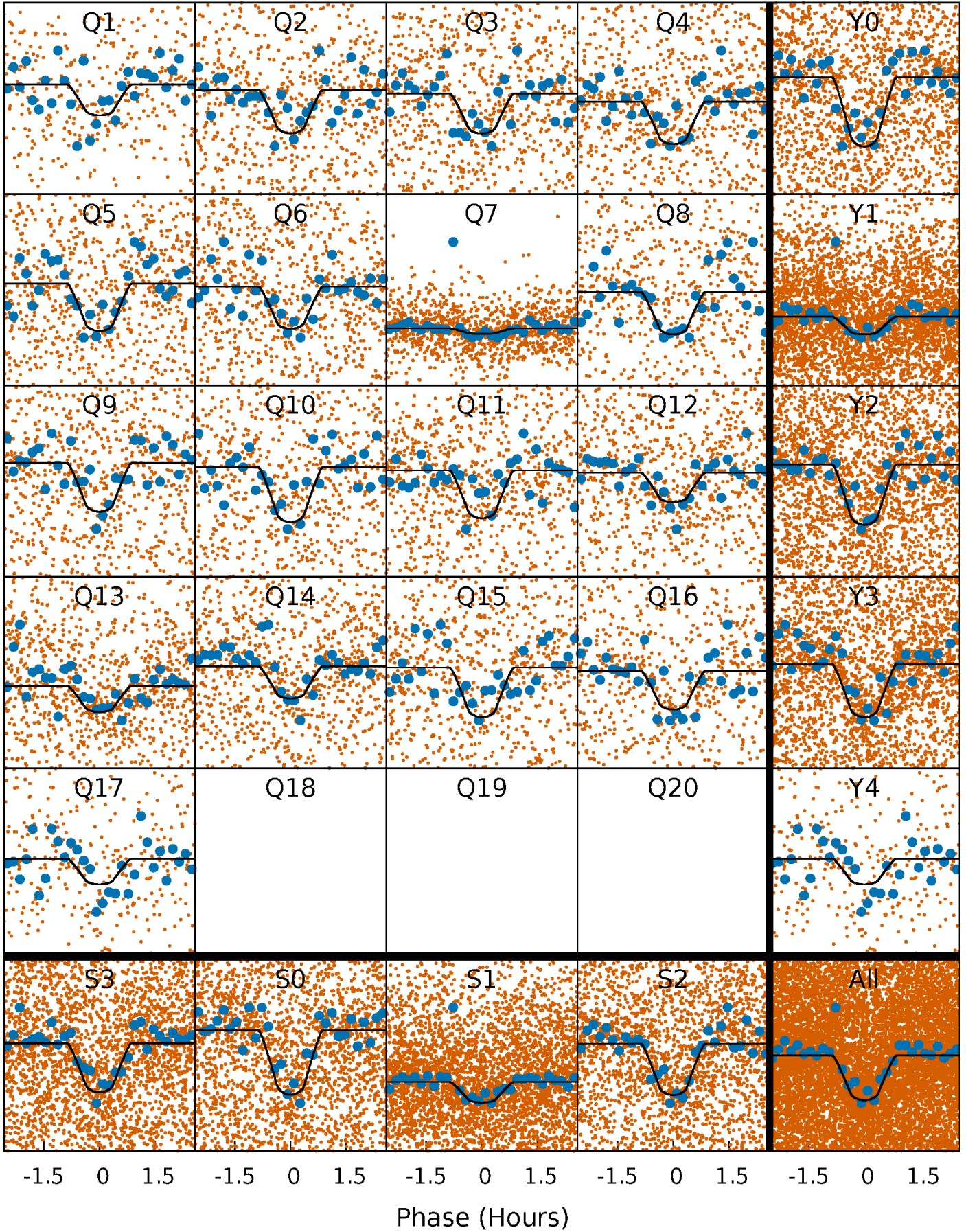
PDC Quarter-Phased Transit Curves

TCE 011030475-02 P= 0.761954 Days $T_0=132.029645$ (BKJD)



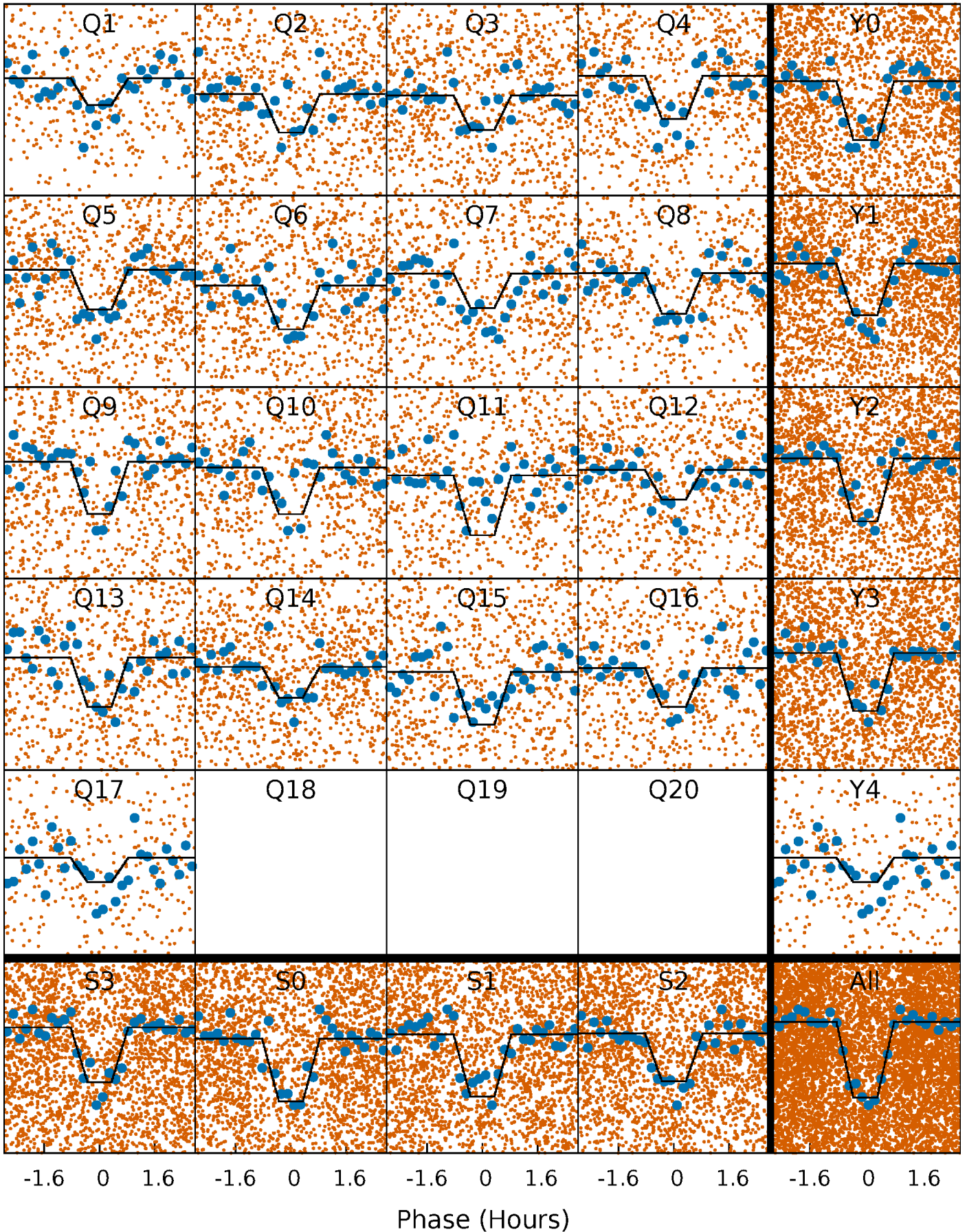
DV Quarter-Phased Transit Curves

TCE 011030475-02 P= 0.761954 Days $T_0=132.029645$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

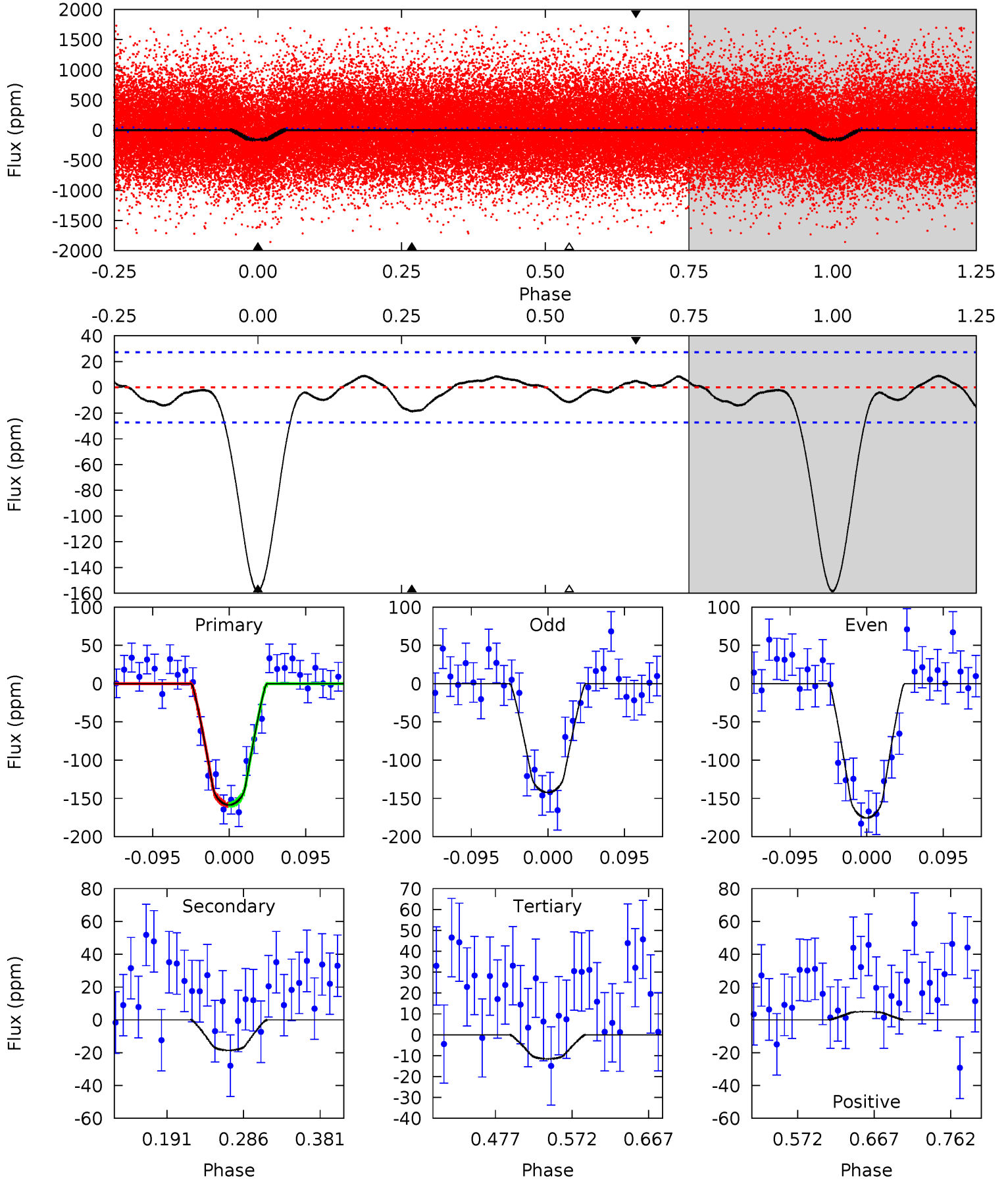
TCE 011030475-02 P= 0.761958 Days $T_0=132.025266$ (BKJD)



DV Model-Shift Uniqueness Test

011030475-02, P = 0.761954 Days, E = 131.267691 Days

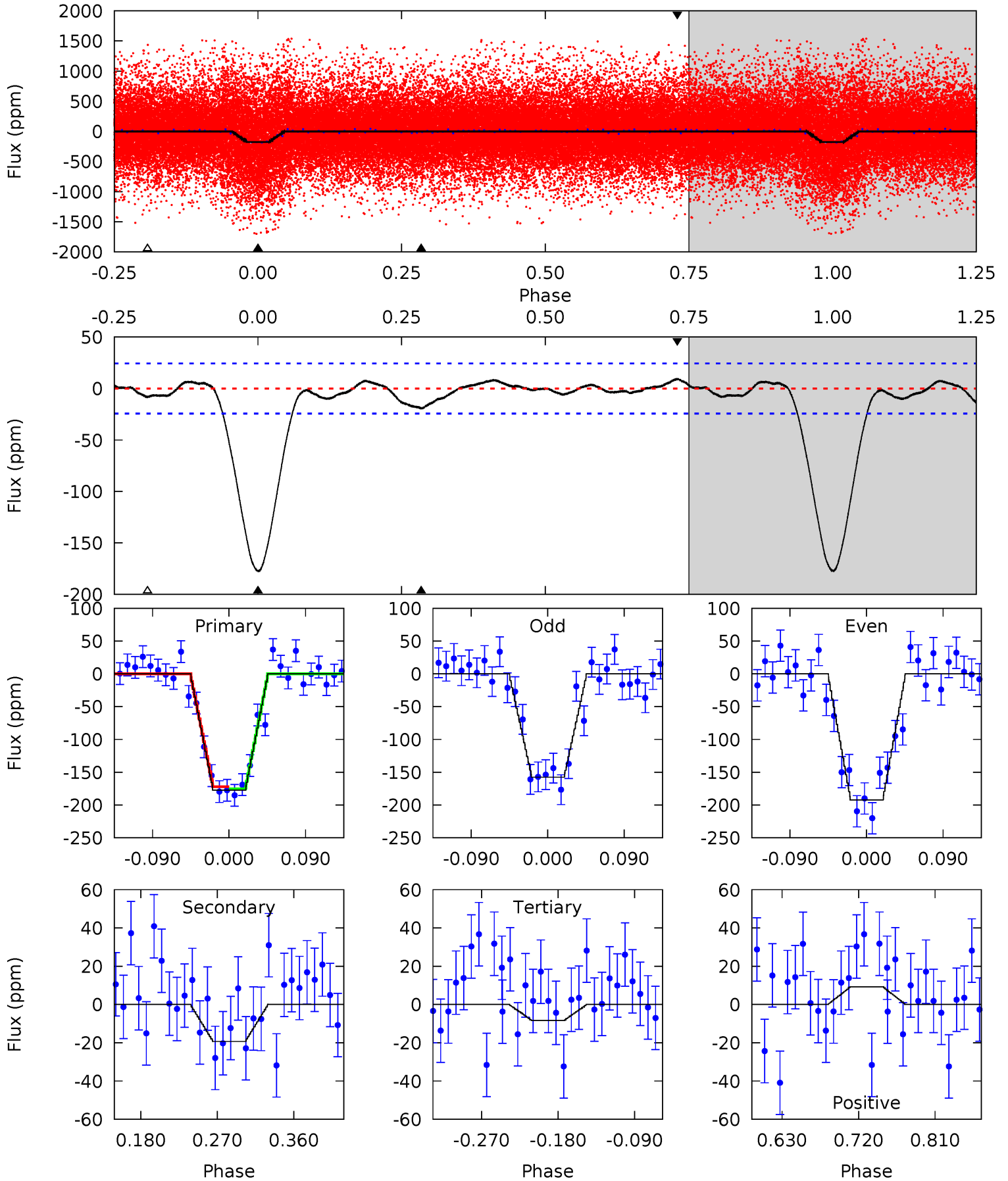
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
26.6	3.12	1.94	0.84	4.57	1.67	1.03	24.6	25.7	1.18	2.28	2.79	0.96	0.05	0.02



Alt Model-Shift Uniqueness Test

011030475-02, P = 0.761958 Days, E = 131.263308 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
33.4	3.63	1.57	1.75	4.59	1.70	0.90	31.8	31.6	2.06	1.89	3.26	1.05	0.05	0.33



Stellar Parameters For KIC 011030475

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5167^{+103}_{-103}	$4.555^{+0.036}_{-0.050}$	$-0.040^{+0.150}_{-0.150}$	$0.787^{+0.053}_{-0.043}$	$0.812^{+0.046}_{-0.046}$	$2.343^{+0.365}_{-0.380}$
	+2%/-2%	+1%/-1%	+375%/-375%	+7%/-5%	+6%/-6%	+16%/-16%
Source	SPE58	SPE58	SPE58	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 011030475-02 / KOI 2248.03

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-19 ± 6	$1.24^{+0.52}_{-0.49}$	2296^{+59}_{-58}	3227^{+675}_{-512}	$1.525^{+2.822}_{-0.872}$
Alt.	-19 ± 5	$1.13^{+0.51}_{-0.53}$	2297^{+64}_{-62}	3352^{+919}_{-478}	$1.874^{+5.126}_{-1.036}$

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

DV Centroid Data

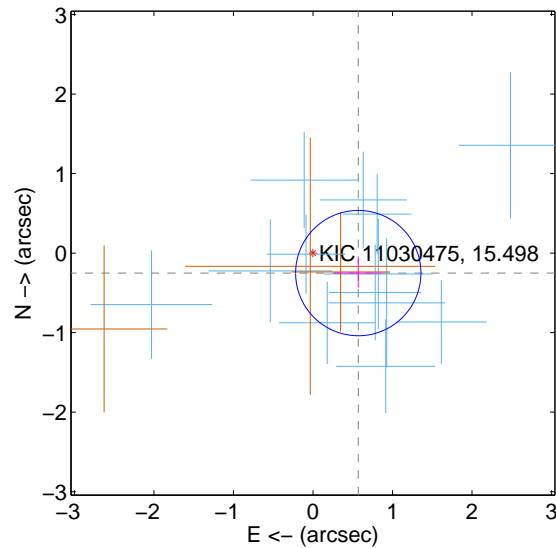
Supplemental centroid analysis for 011030475-02. Kepler magnitude: 15.50. Transit SNR 18.93

There are 13 quarters with good PRF difference image offsets

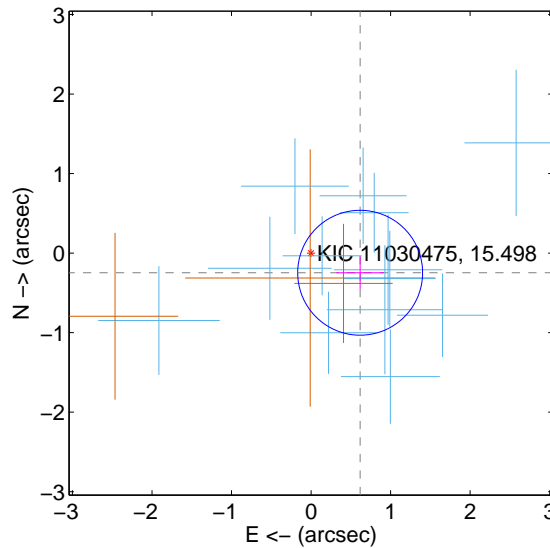
The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.622 ± 0.263	2.37	-0.569 ± 0.301	-0.251 ± 0.182
PRF-fit source offset from KIC position	0.665 ± 0.262	2.54	-0.617 ± 0.300	-0.247 ± 0.204
photometric centroid source offset	0.60 ± 0.65	0.93	0.57 ± 0.65	0.20 ± 0.63

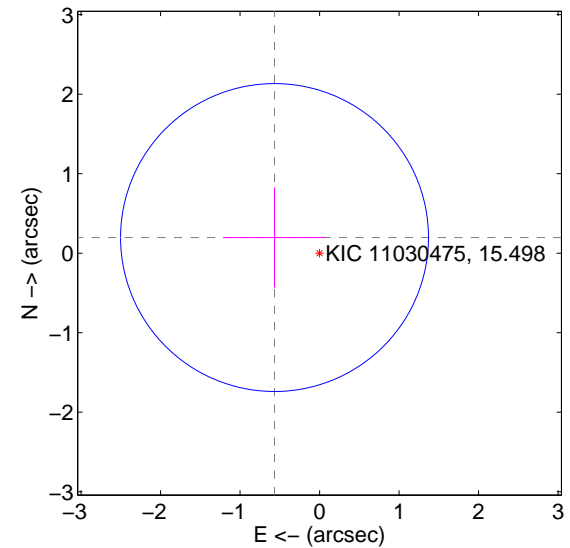
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

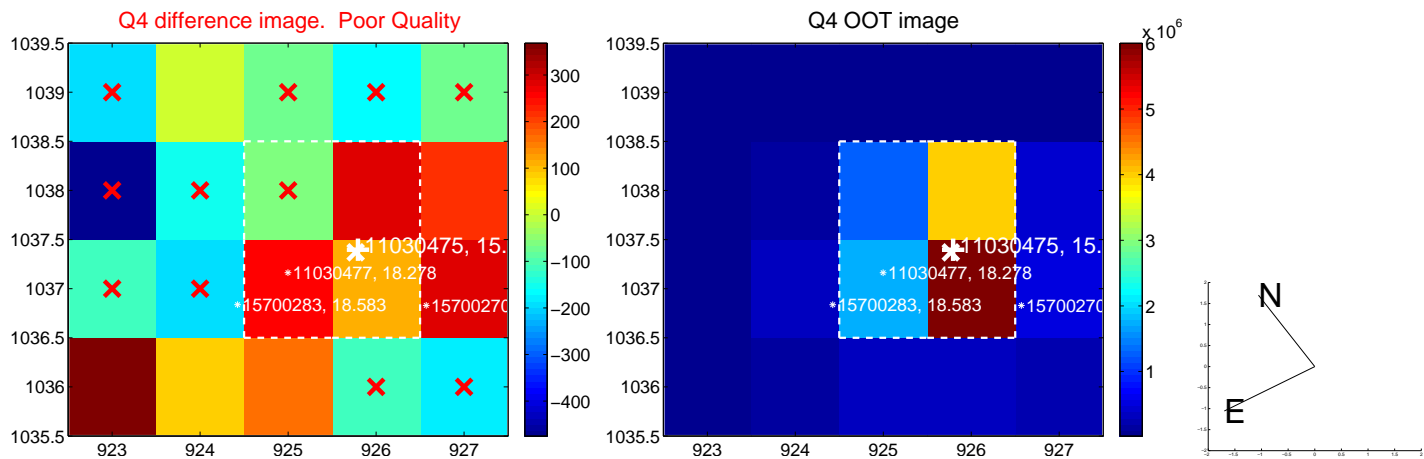
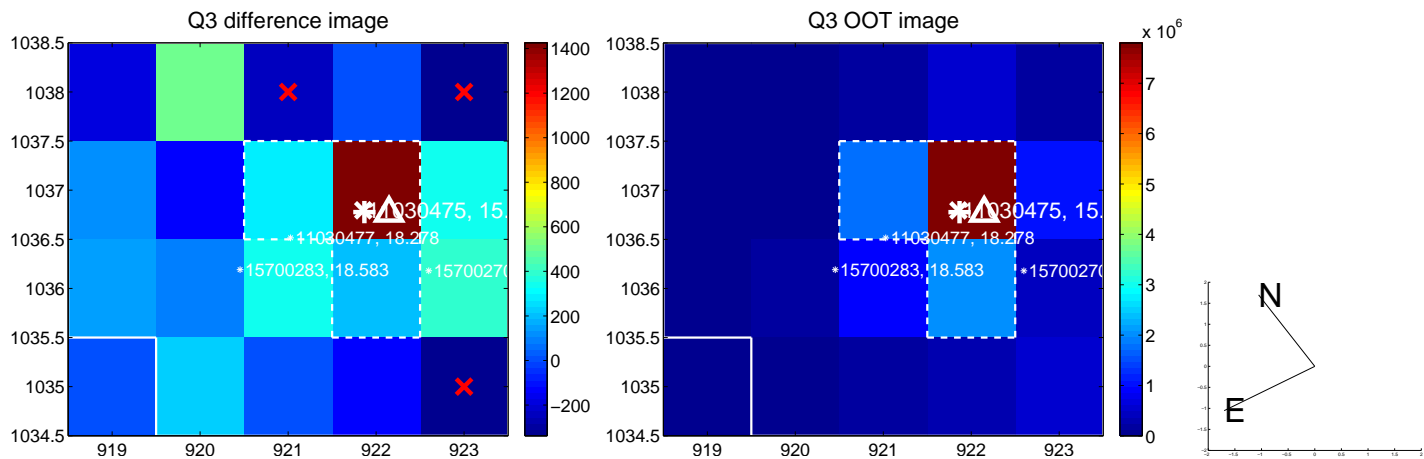
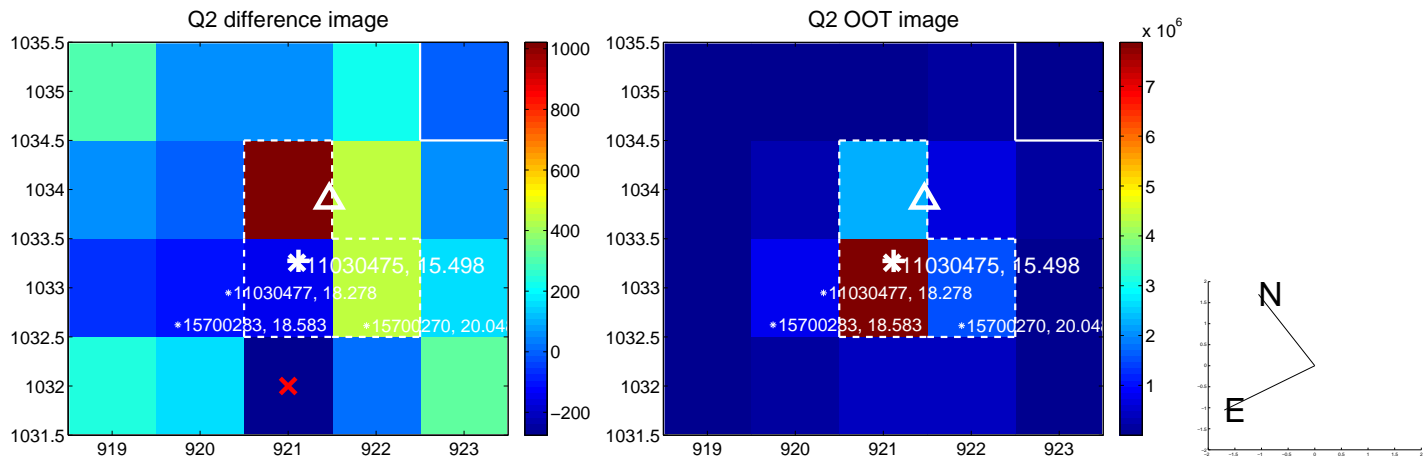
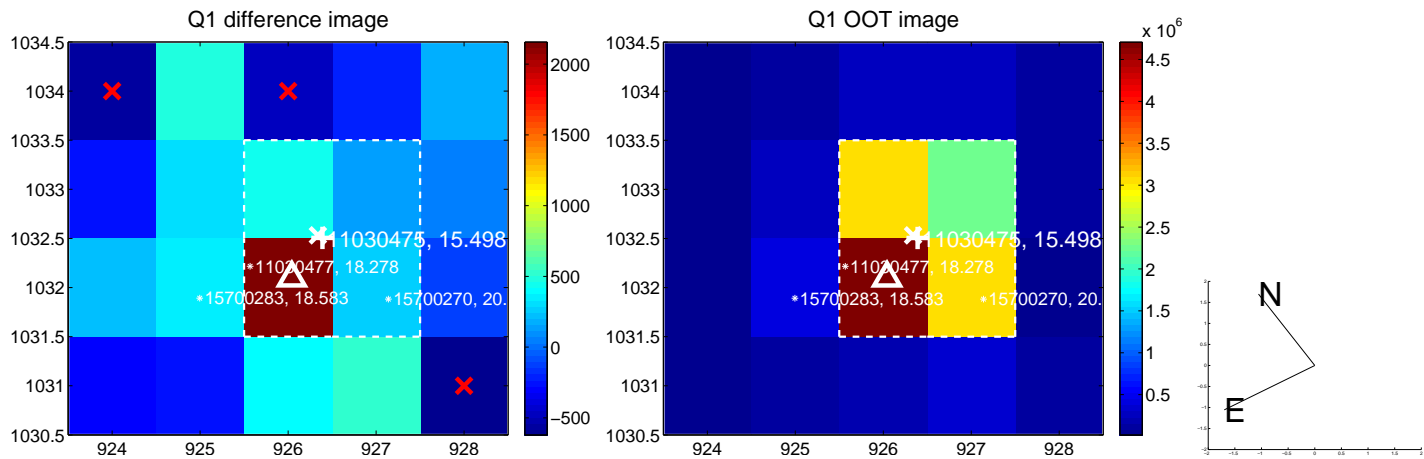


offset from photometric centroids

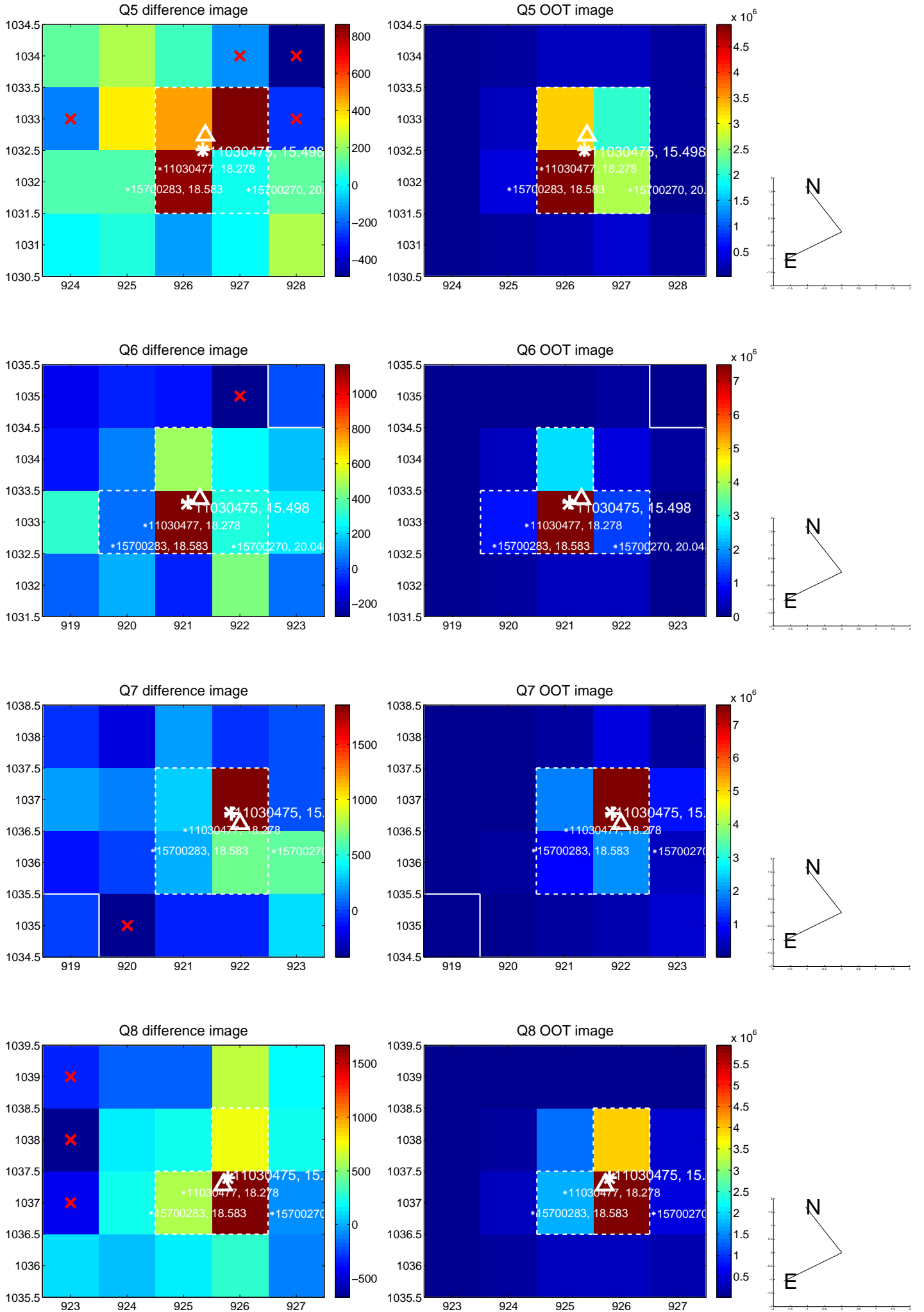


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

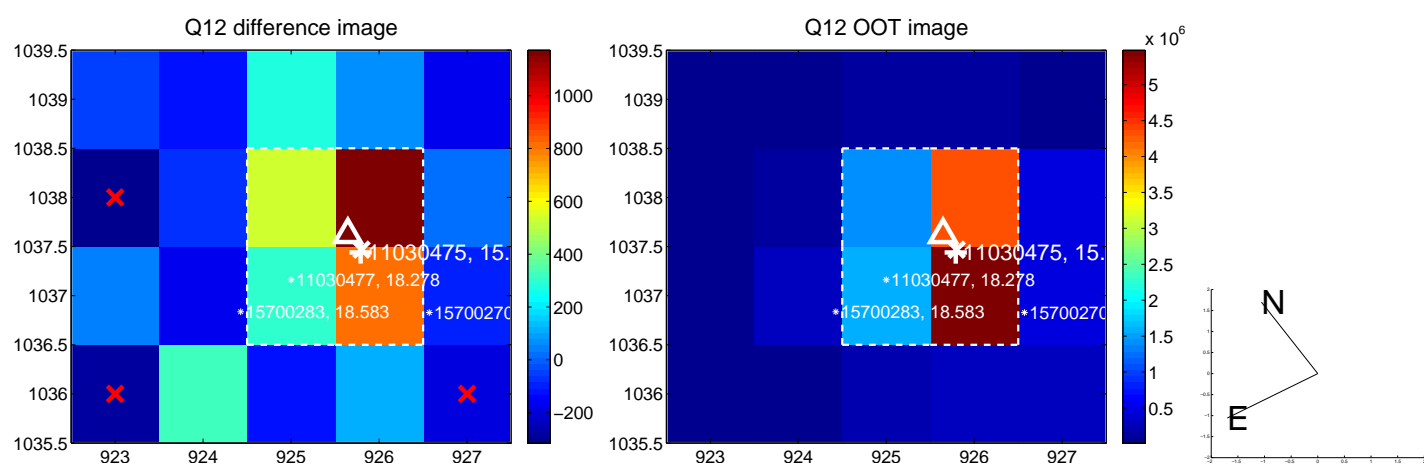
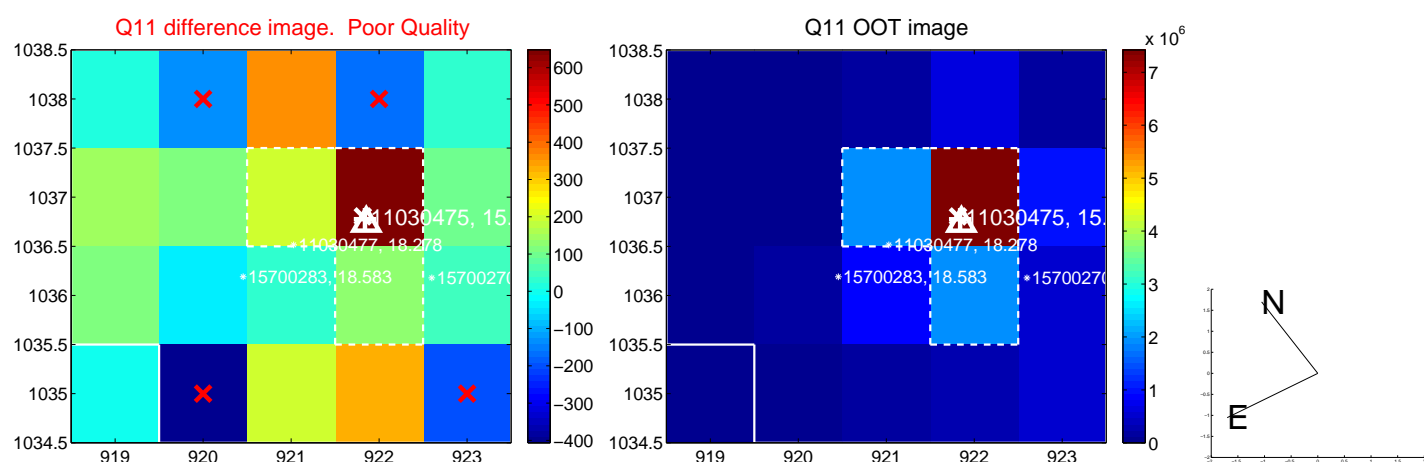
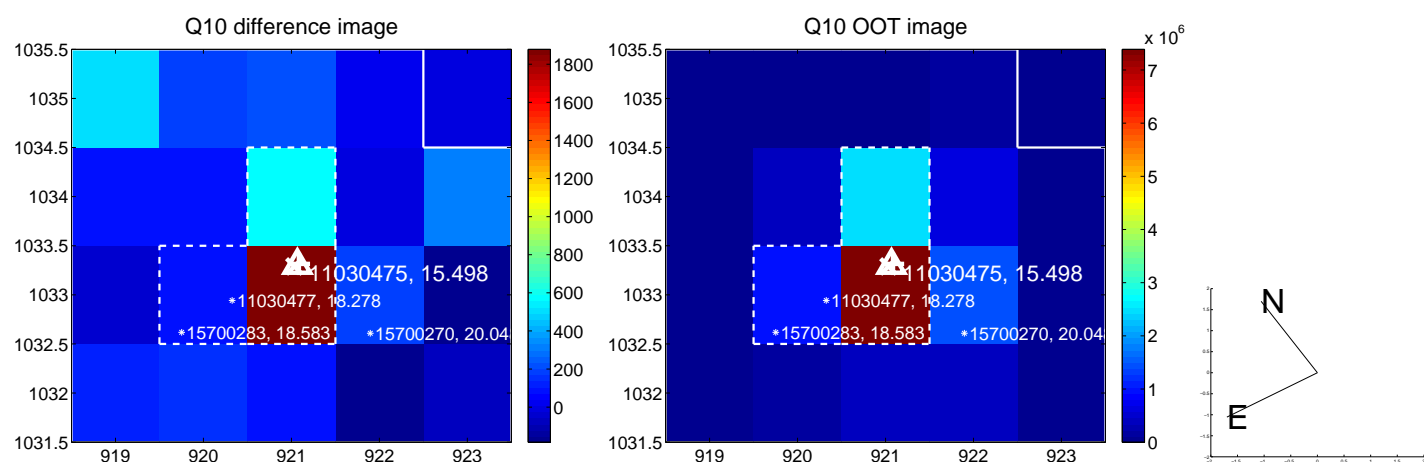
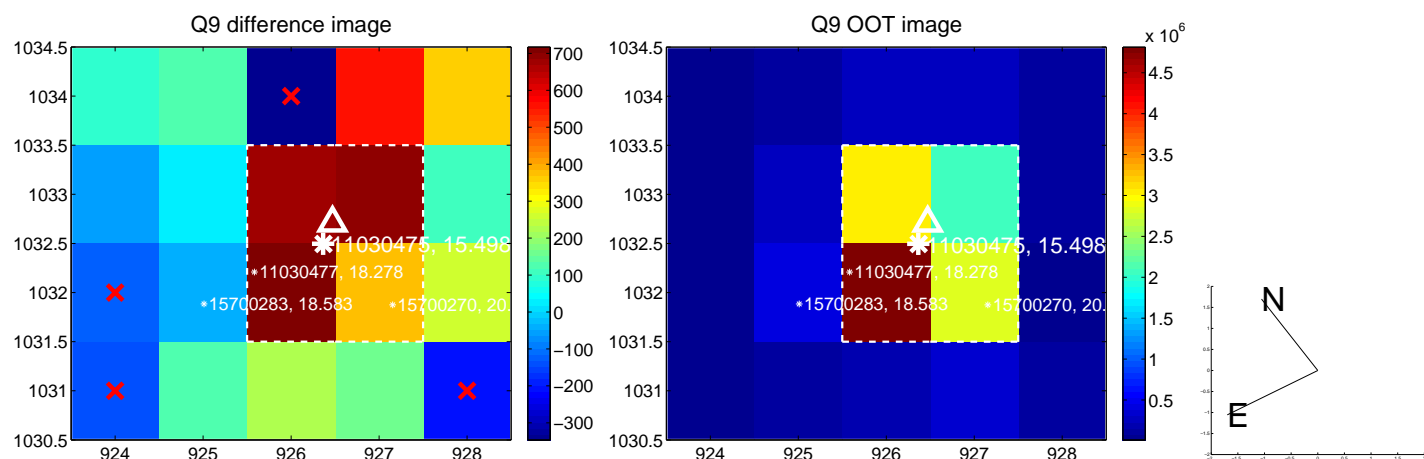
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



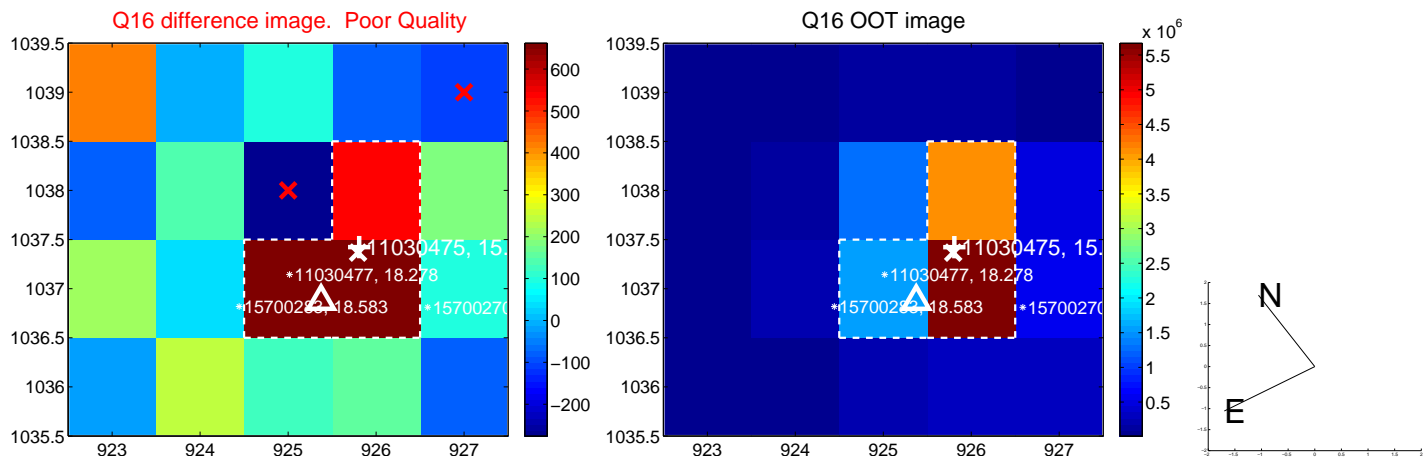
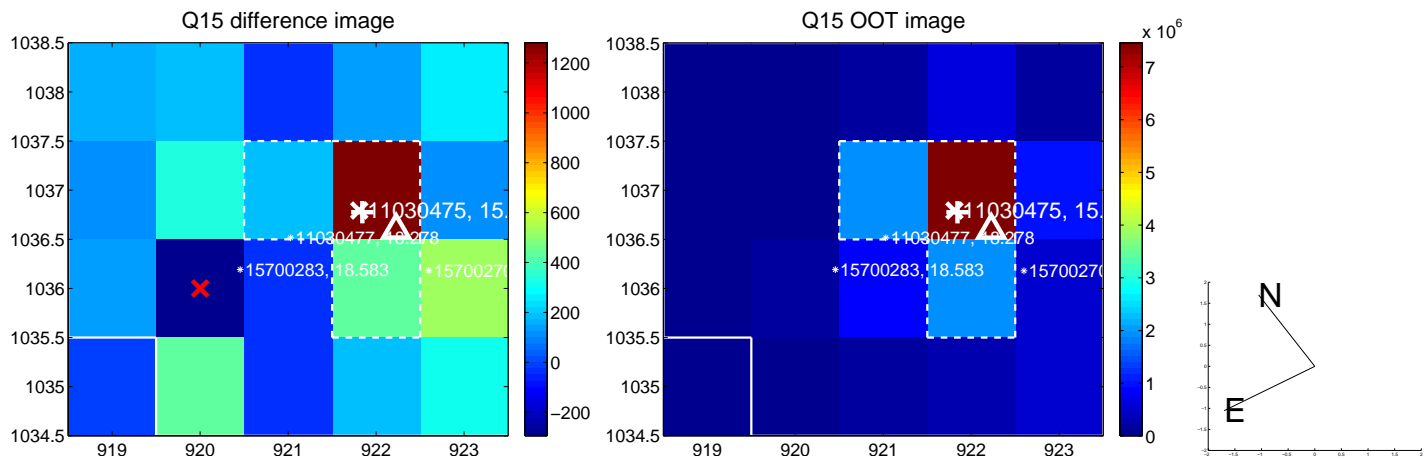
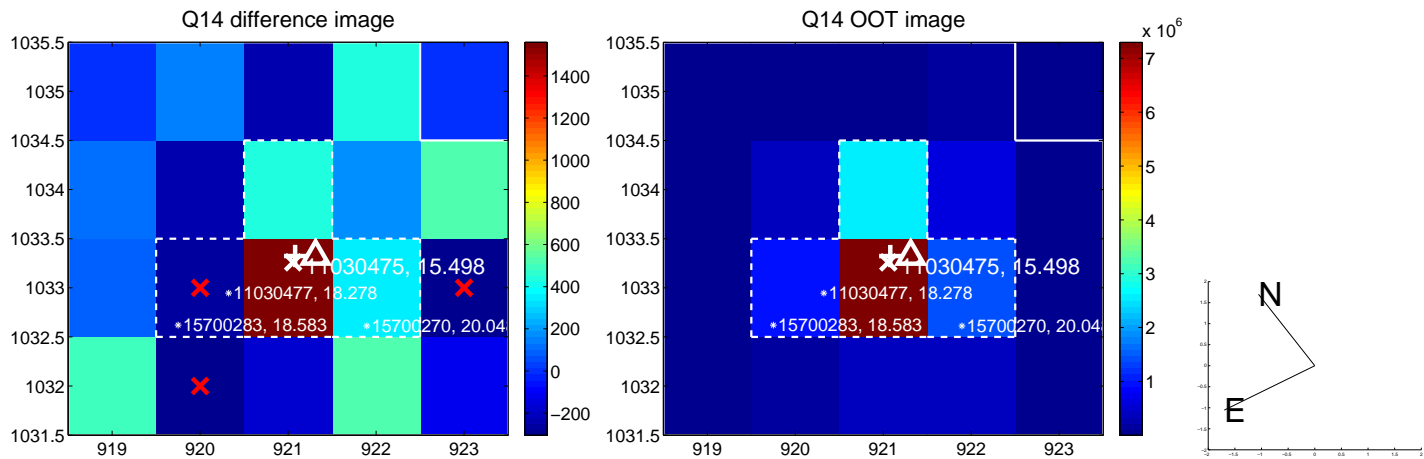
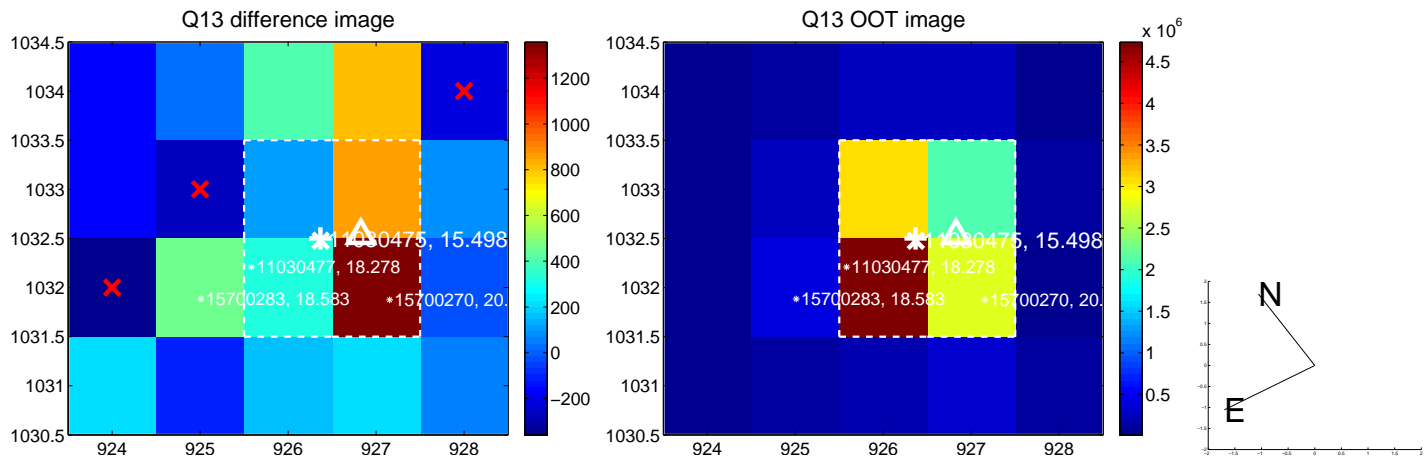
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



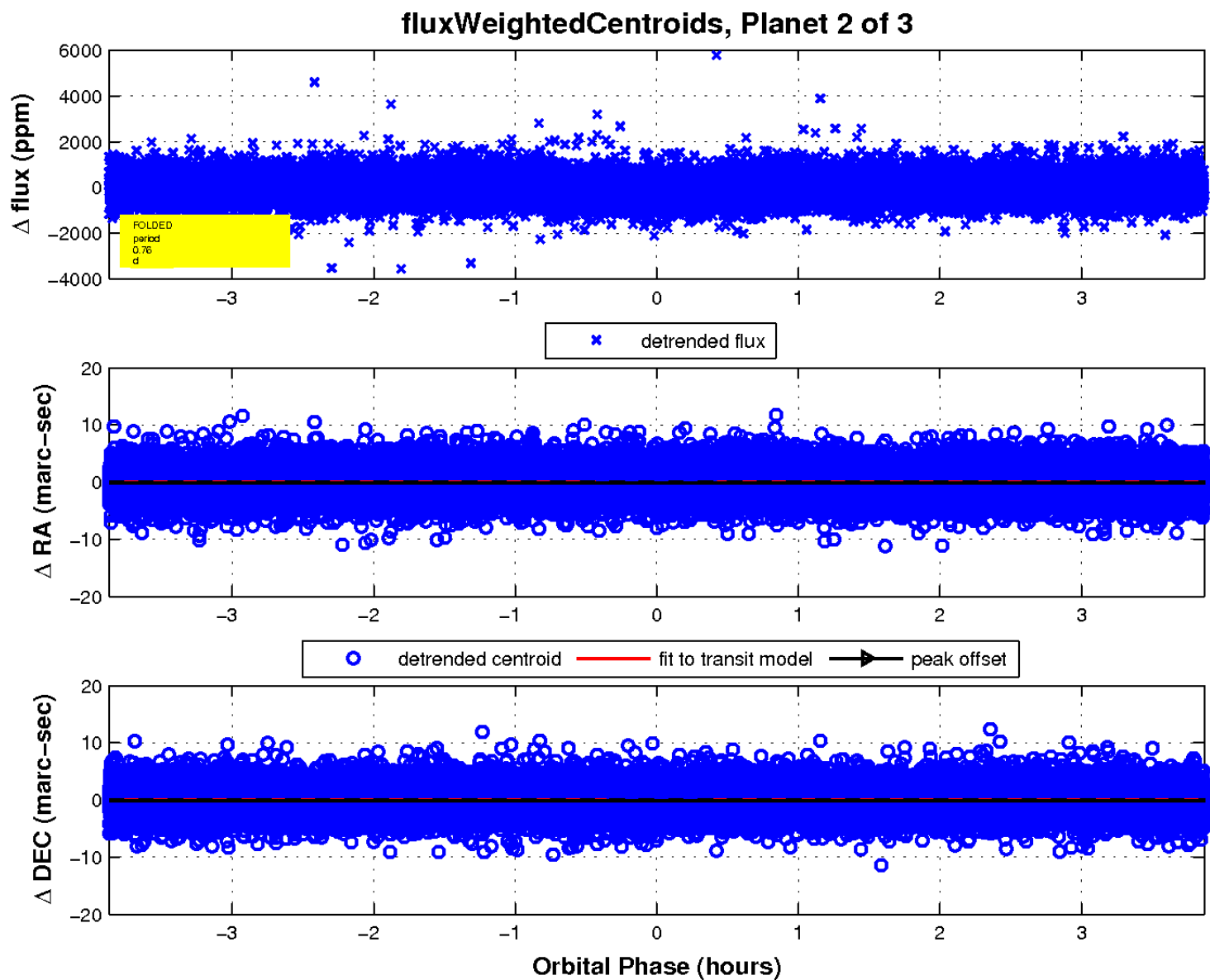
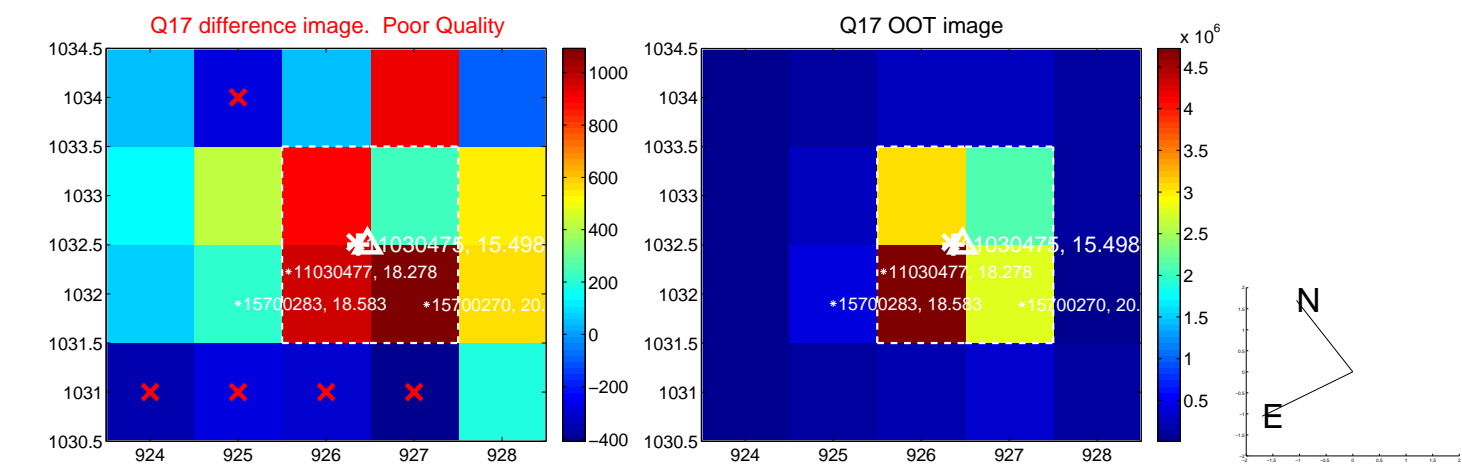
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

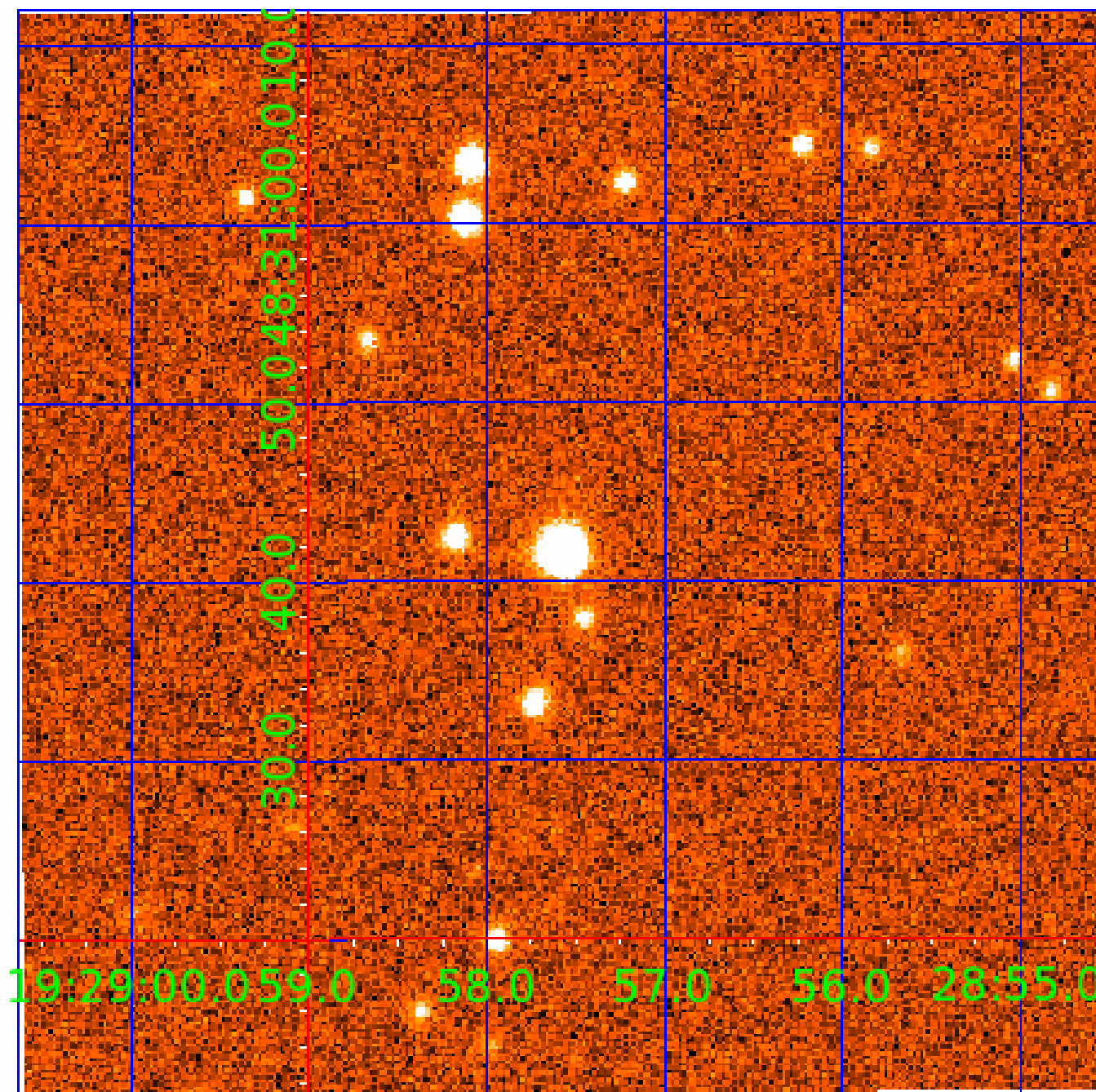


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 011030475

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
011030475-01	OBS	2248.01	2.818155	132.249715	309.8	1.786	18.7	20.6	0.79	5167	1.41	298.23
011030475-02	OBS	2248.03	0.761954	132.029645	174.3	1.290	16.8	18.9	0.79	5167	1.26	1705.79
011030475-03	OBS	2248.04	2.646238	132.663128	183.1	1.229	7.6	9.2	0.79	5167	1.29	324.33

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011030475-01	OBS	PC	0.90	0	0	0	0	NO_COMMENT
011030475-02	OBS	PC	0.99	0	0	0	0	NO_COMMENT
011030475-03	OBS	PC	0.99	0	0	0	0	NO_COMMENT

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

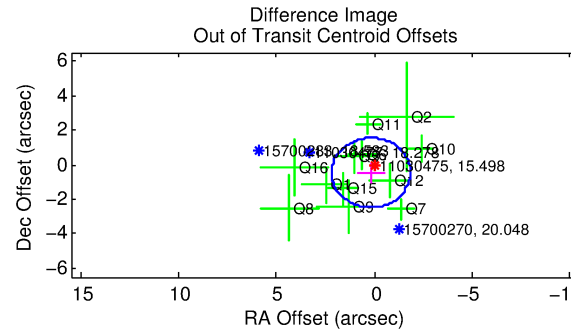
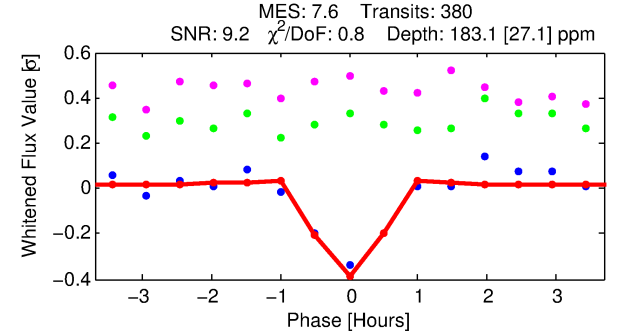
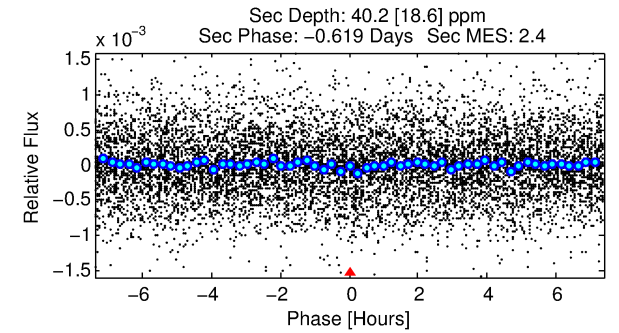
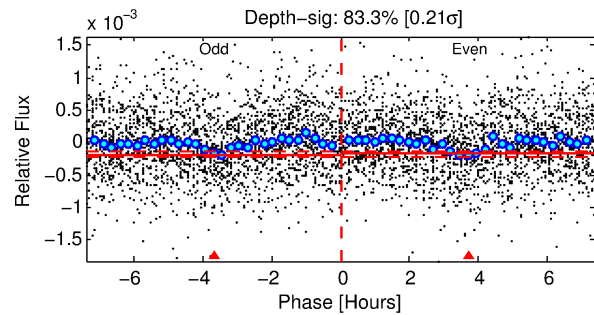
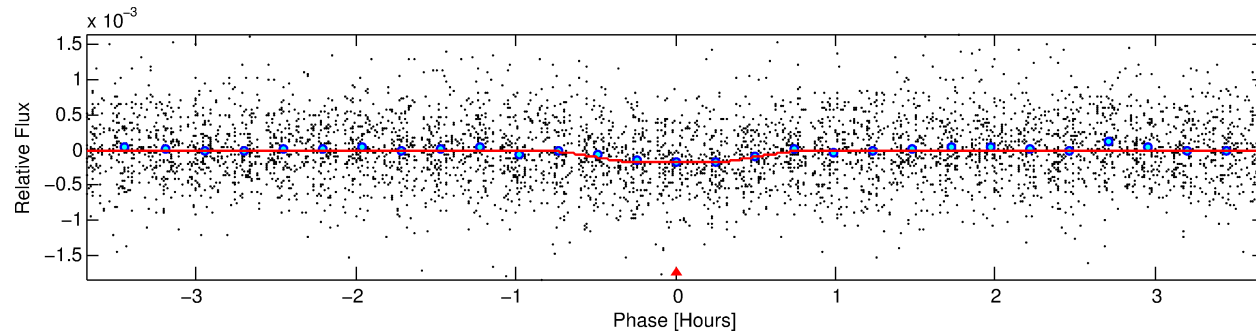
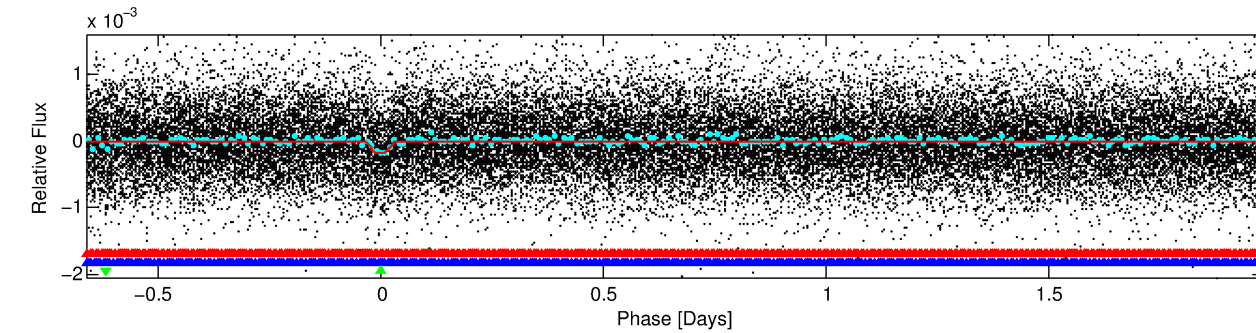
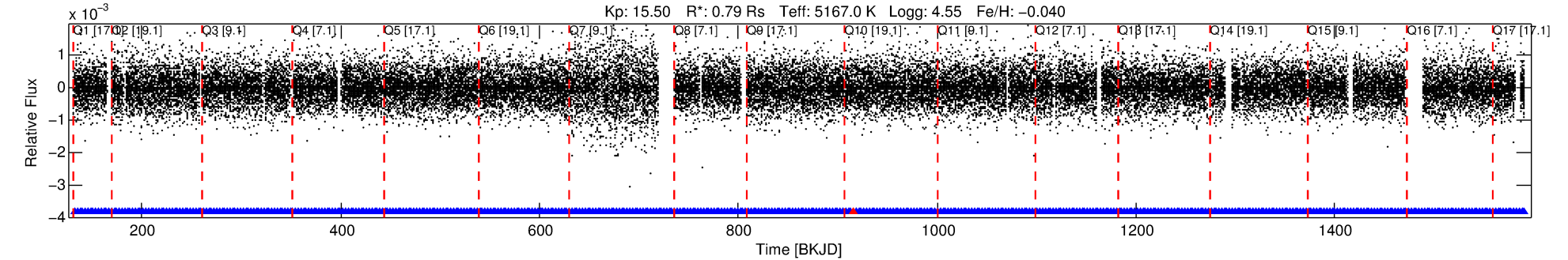
Ephemeris Match Information For 011030475-03

No Significant Match Found

DV One-Page Summary

KIC: 11030475 Candidate: 3 of 3 Period: 2.646 d

KOI: K02248.04 Corr: 0.968



DV Fit Results:

Period = 2.64624 [0.00001] d
Epoch = 132.6631 [0.0023] BKJD
Rp/R* = 0.0150 [0.0137]
a/R* = 7.93 [29.02]
b = 0.89 [0.86]
Seff = 324.33 [38.74]
Teq = 1082 [32] K
Rp = 1.29 [1.18] Re
a = 0.0349 [0.0021] AU
Ag = 16.17 [30.51] [0.50σ]
Teffp = 3355 [1582] K [1.44σ]

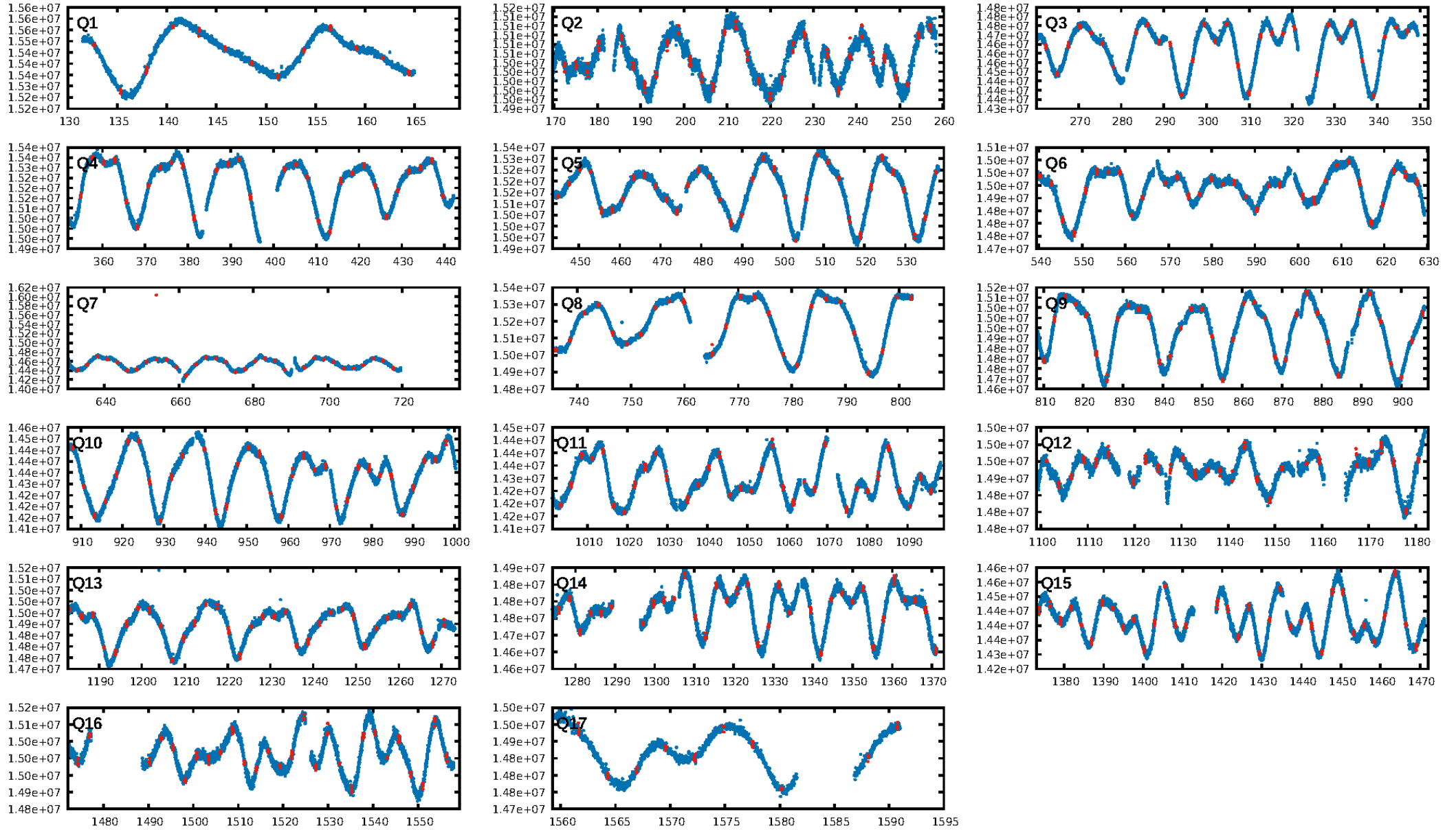
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [25.38σ]
LongPeriod-sig: 94.3% [1.90σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 3.35e-14
RollingBand-fgt: 1.00 [363/364]
GhostDiagnostic-chr: 1.22
Centroid-sig: 57.6%
Centroid-so: 1.050 arcsec [0.90σ]
OotOffset-rm: 0.505 arcsec [0.75σ]
KicOffset-rm: 0.412 arcsec [0.70σ]
OotOffset-st: 3/3/3 [12]
KicOffset-st: 3/3/3 [12]
DiffImageQuality-fgm: 0.25 [3/12]
DiffImageOverlap-fno: 1.00 [17/17]

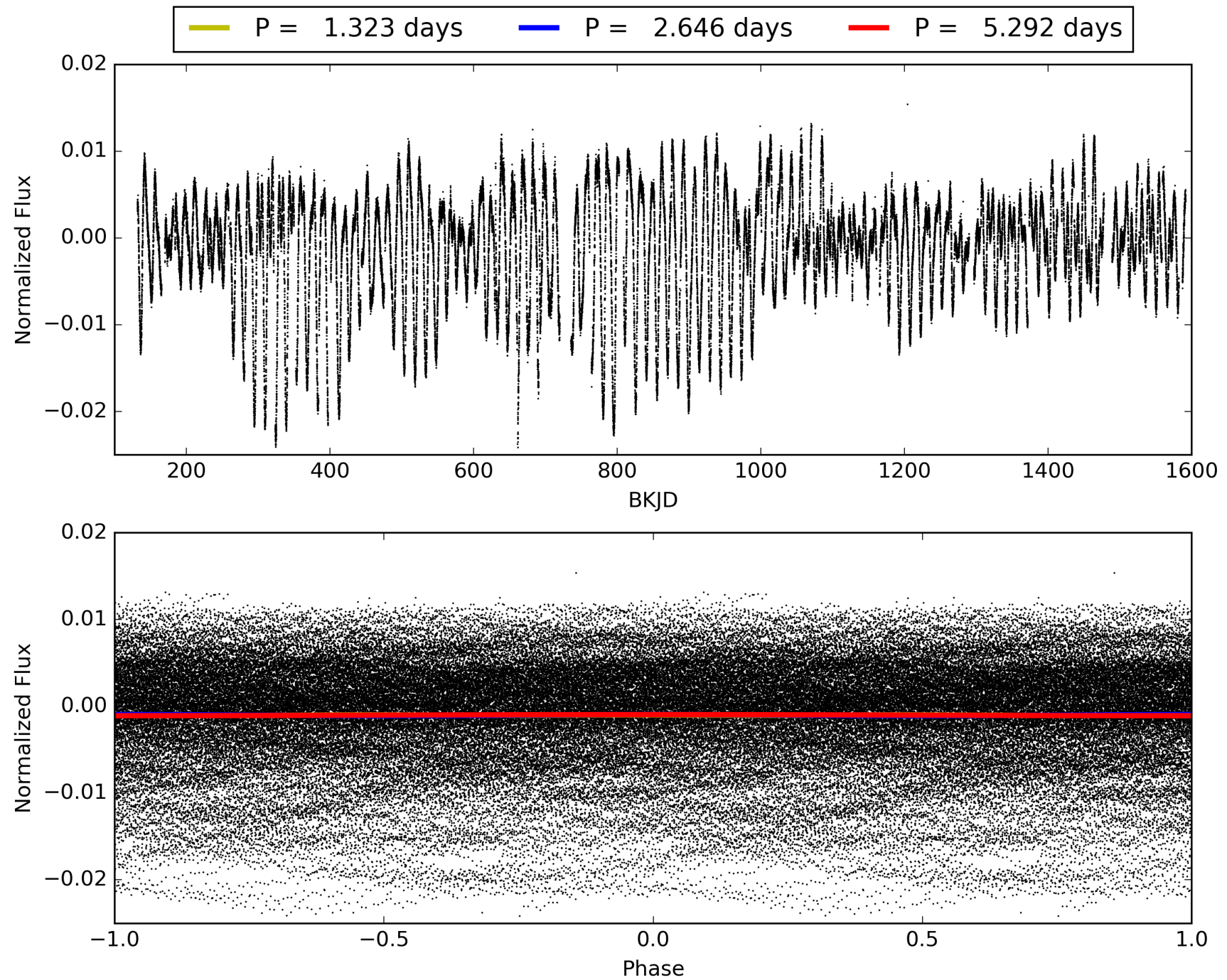
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 17:43:18 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 011030475-03, PDC Light Curves

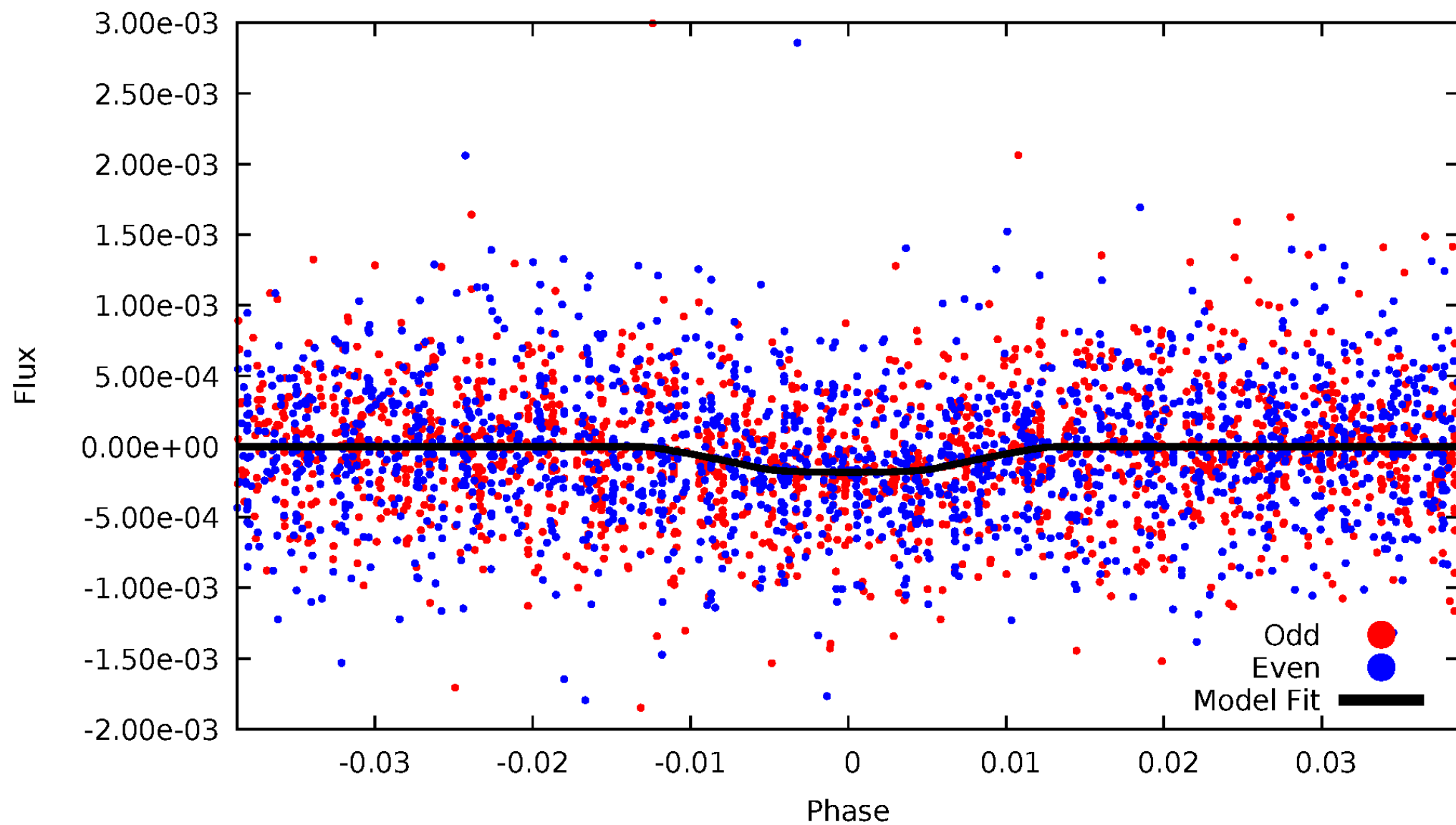


TCE 011030475-03



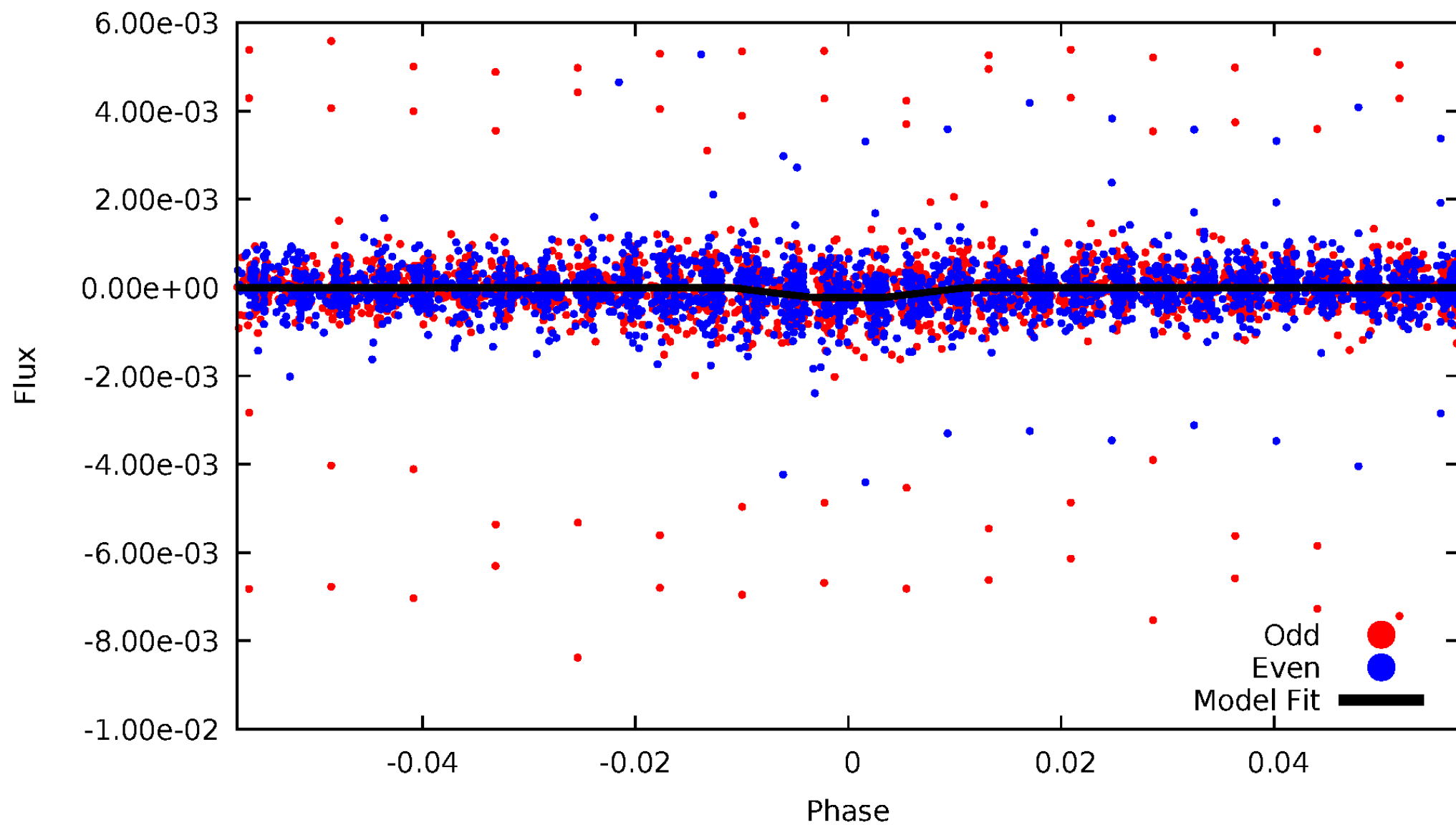
DV Odd/Even

TCE 011030475-03

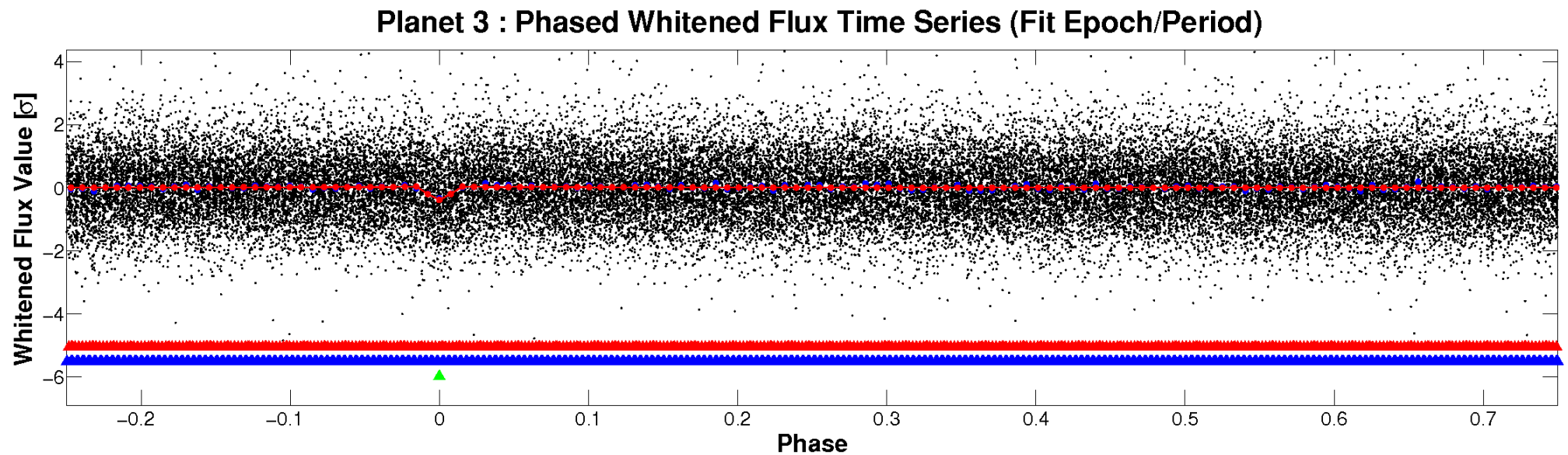
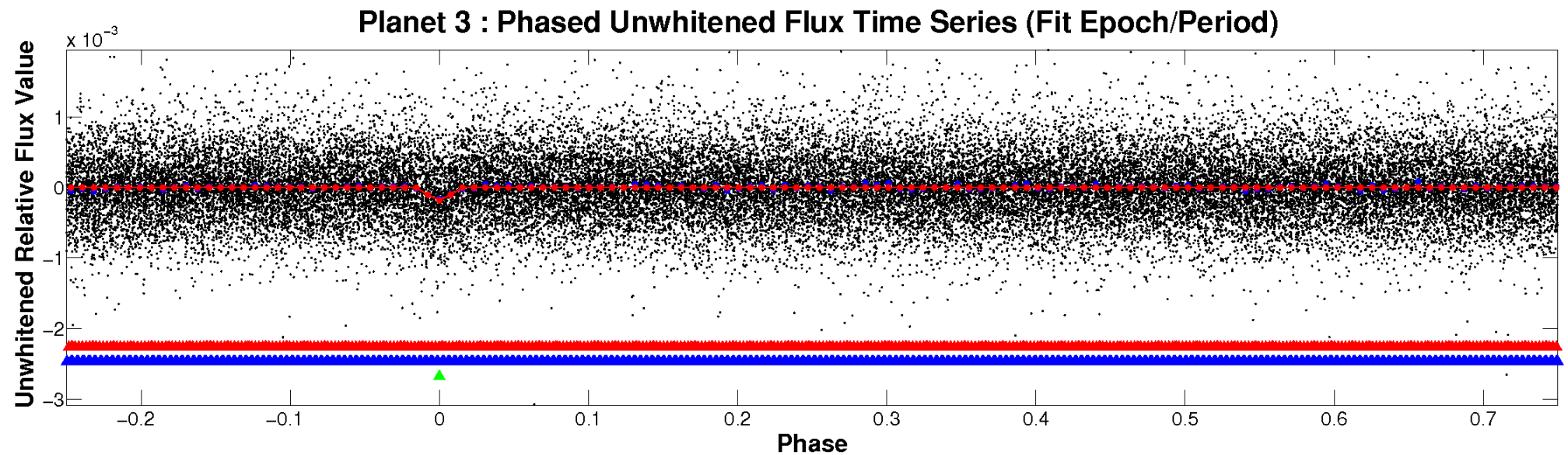


ALT Odd/Even

TCE 011030475-03

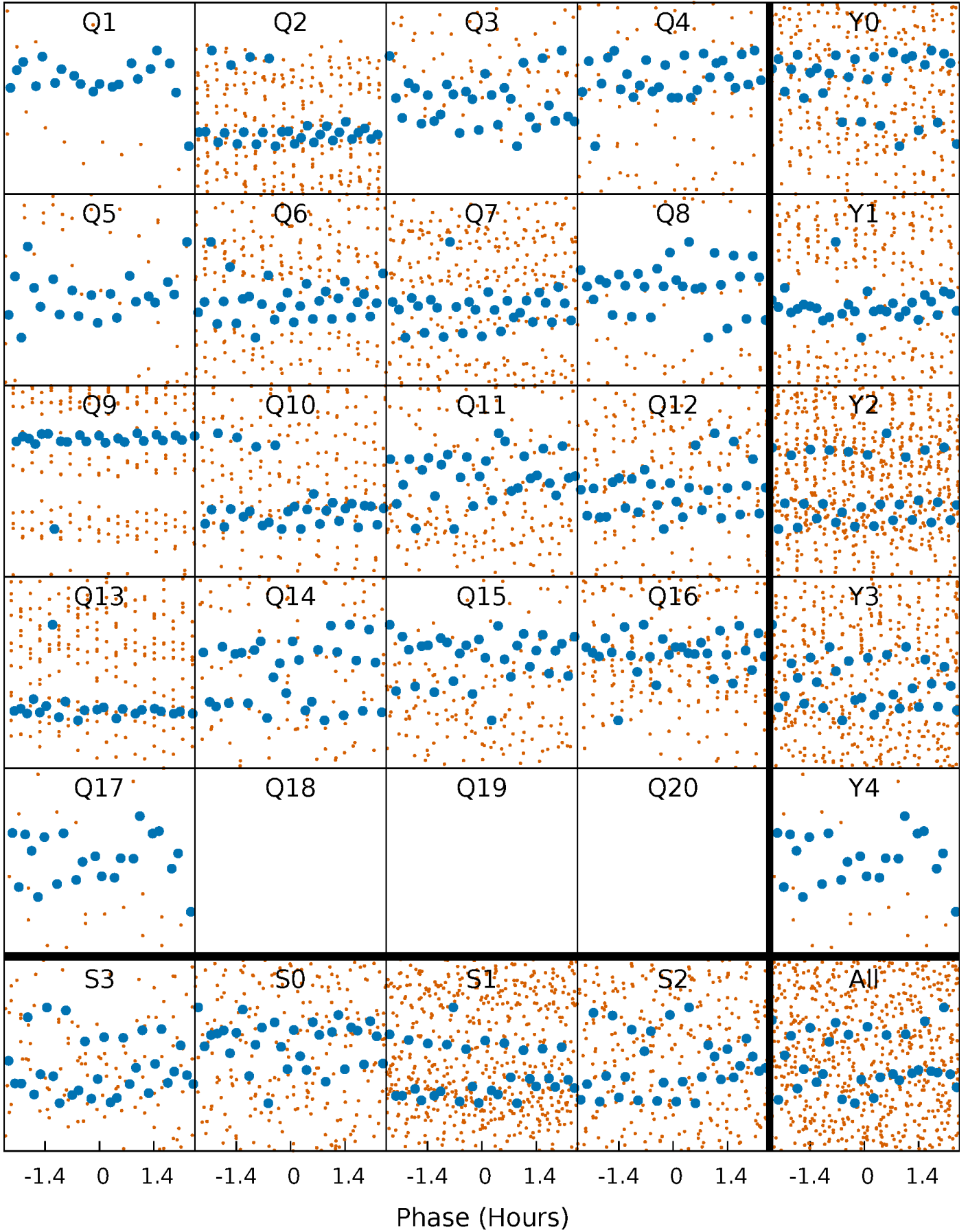


Non-Whitened Vs. Whitened Light Curve



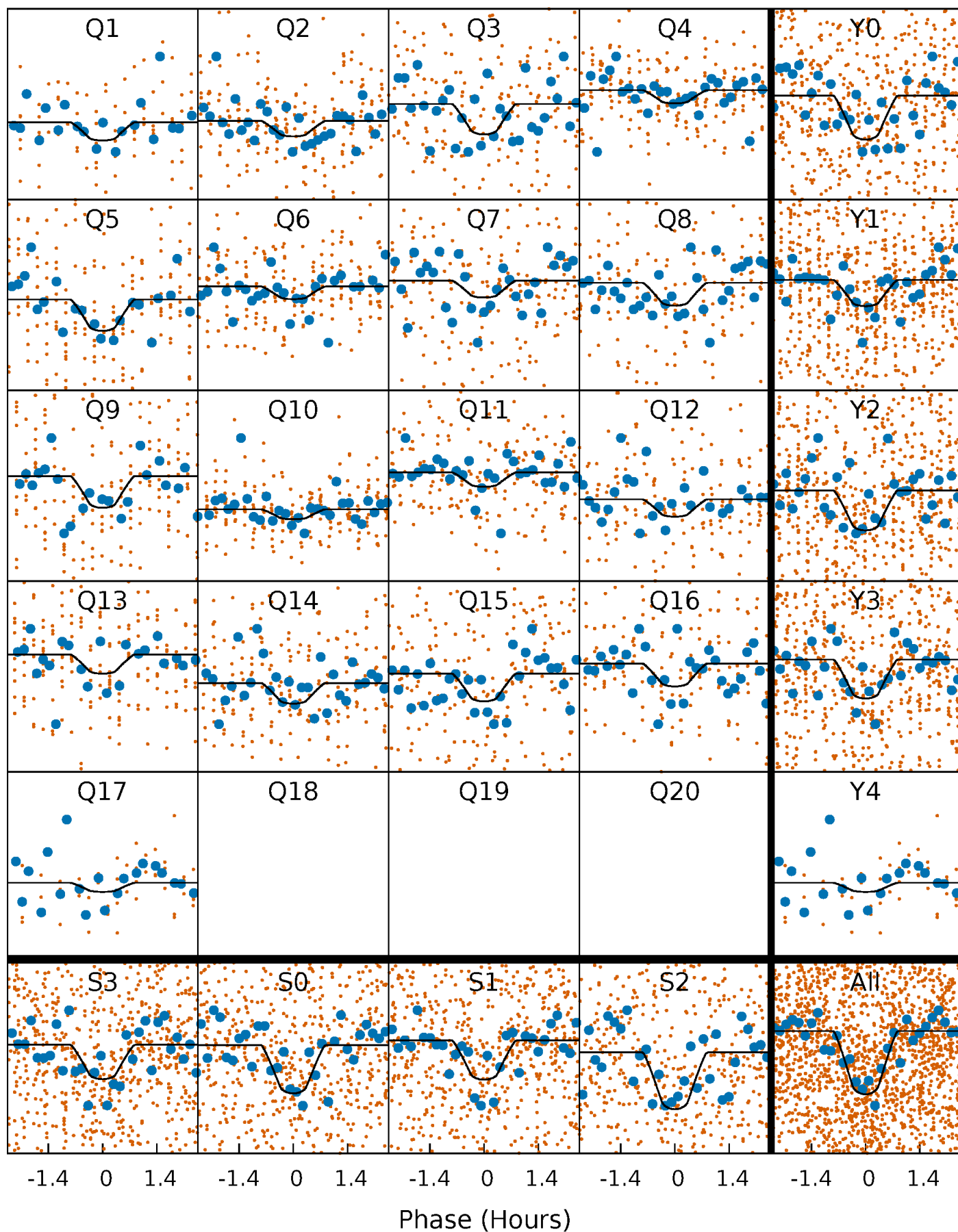
PDC Quarter-Phased Transit Curves

TCE 011030475-03 P= 2.646238 Days $T_0=132.663128$ (BKJD)



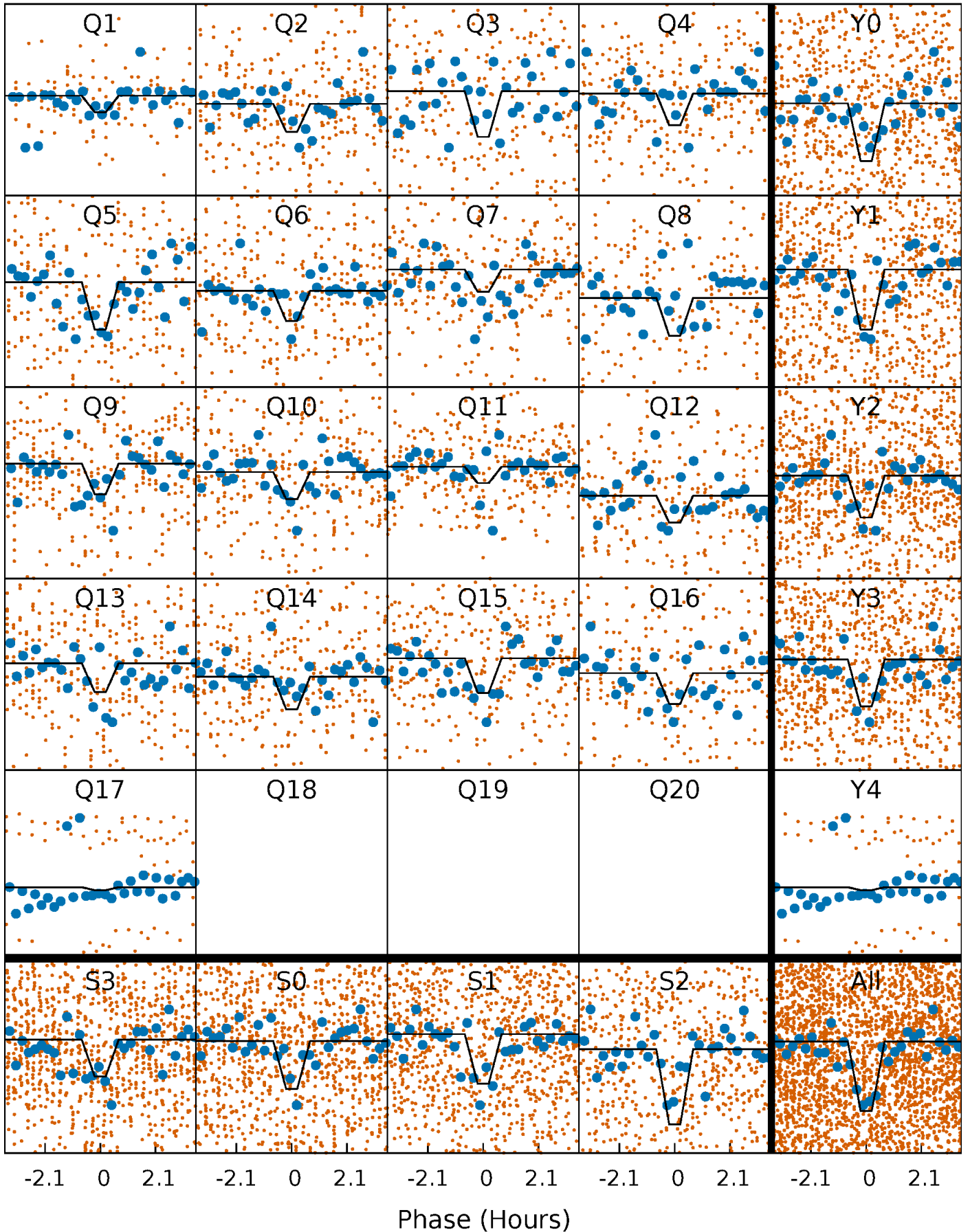
DV Quarter-Phased Transit Curves

TCE 011030475-03 P= 2.646238 Days $T_0=132.663128$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

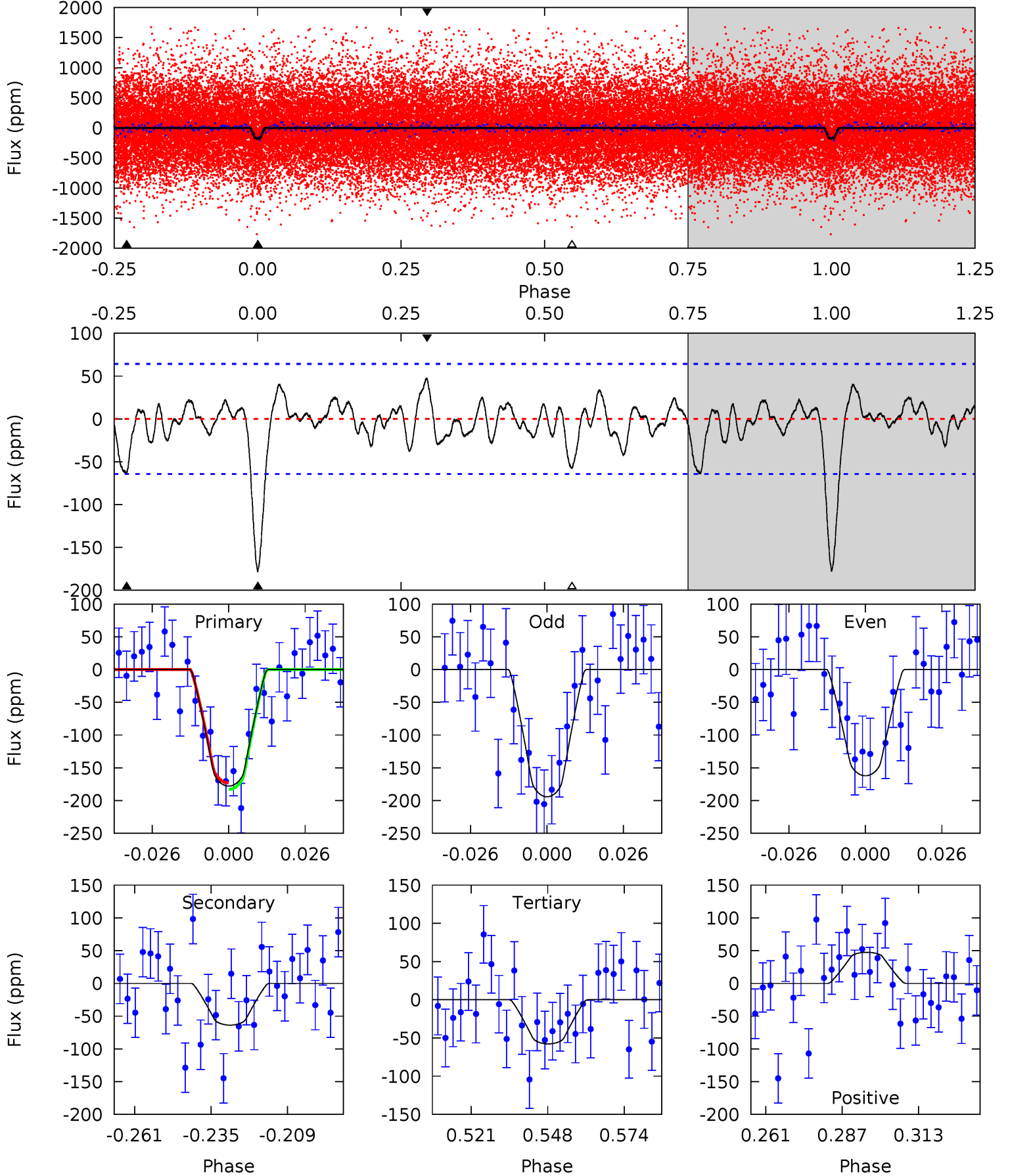
TCE 011030475-03 P= 2.646232 Days $T_0=132.667590$ (BKJD)



DV Model-Shift Uniqueness Test

011030475-03, P = 2.646238 Days, E = 130.016890 Days

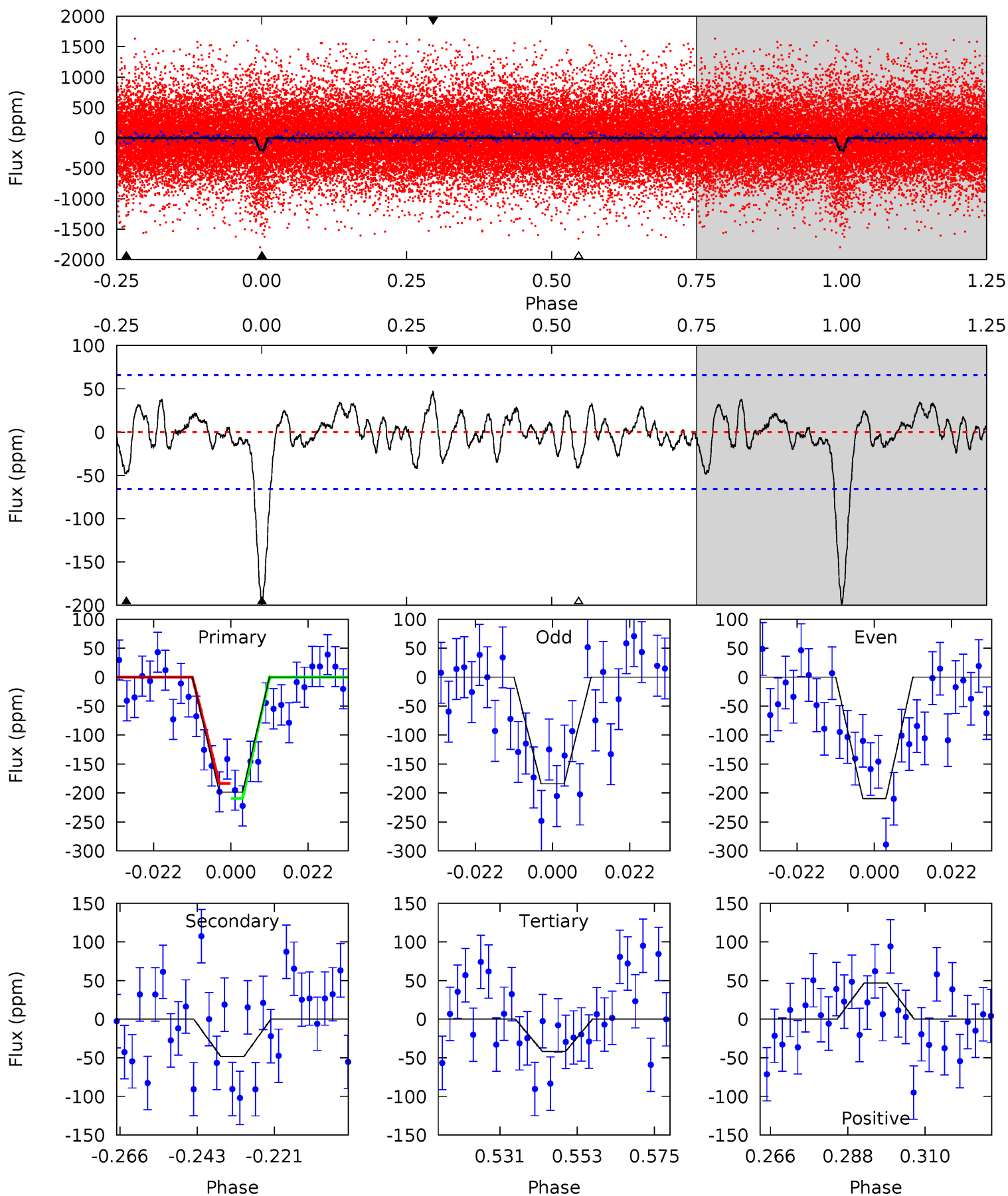
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.4	4.80	4.35	3.58	4.84	2.23	1.32	9.05	9.83	0.45	1.23	1.21	1.04	0.21	0.38



Alt Model-Shift Uniqueness Test

011030475-03, P = 2.646232 Days, E = 130.021358 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.7	3.57	3.09	3.47	4.87	2.29	1.20	11.6	11.2	0.48	0.11	0.95	1.39	0.19	0.96



Stellar Parameters For KIC 011030475

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5167^{+103}_{-103}	$4.555^{+0.036}_{-0.050}$	$-0.040^{+0.150}_{-0.150}$	$0.787^{+0.053}_{-0.043}$	$0.812^{+0.046}_{-0.046}$	$2.343^{+0.365}_{-0.380}$
	+2%/-2%	+1%/-1%	+375%/-375%	+7%/-5%	+6%/-6%	+16%/-16%
Source	SPE58	SPE58	SPE58	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 011030475-03 / KOI 2248.04

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-64 ± 13	$1.53^{+1.11}_{-0.94}$	1514^{+40}_{-36}	3783^{+1711}_{-632}	18^{+110}_{-12}
Alt.	-48 ± 14	$1.44^{+1.10}_{-0.85}$	1515^{+38}_{-37}	3662^{+1535}_{-638}	15^{+76}_{-11}

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

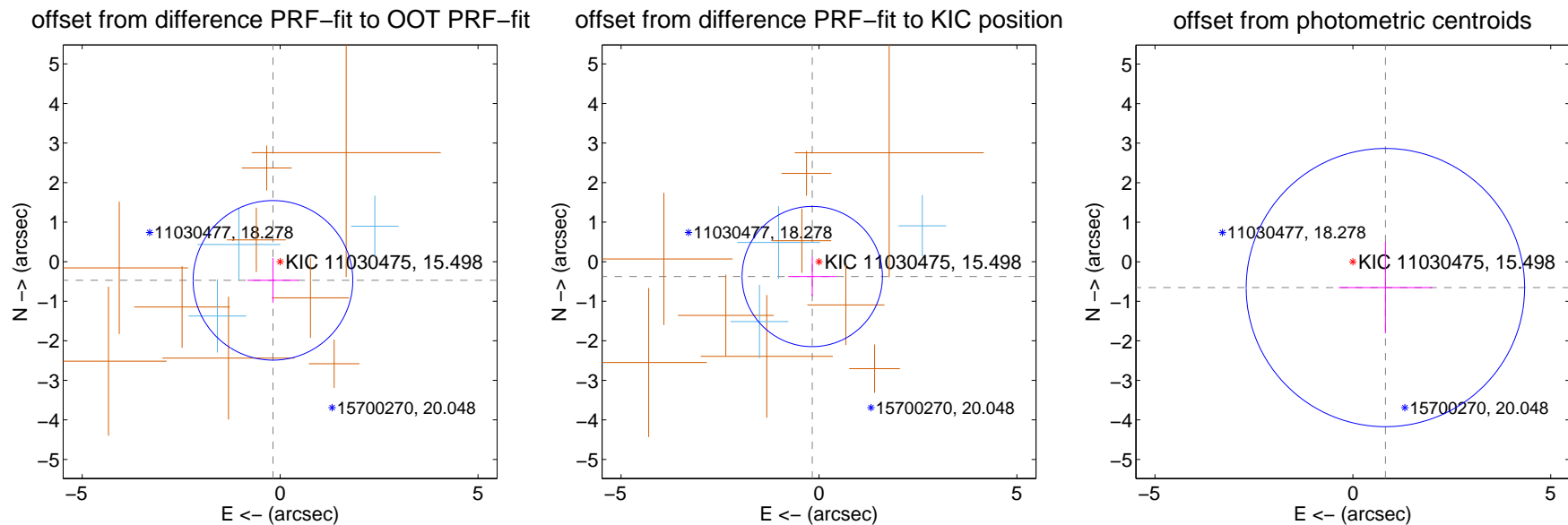
DV Centroid Data

Supplemental centroid analysis for 011030475-03. Kepler magnitude: 15.50. Transit SNR 9.17

There are 3 quarters with good PRF difference image offsets

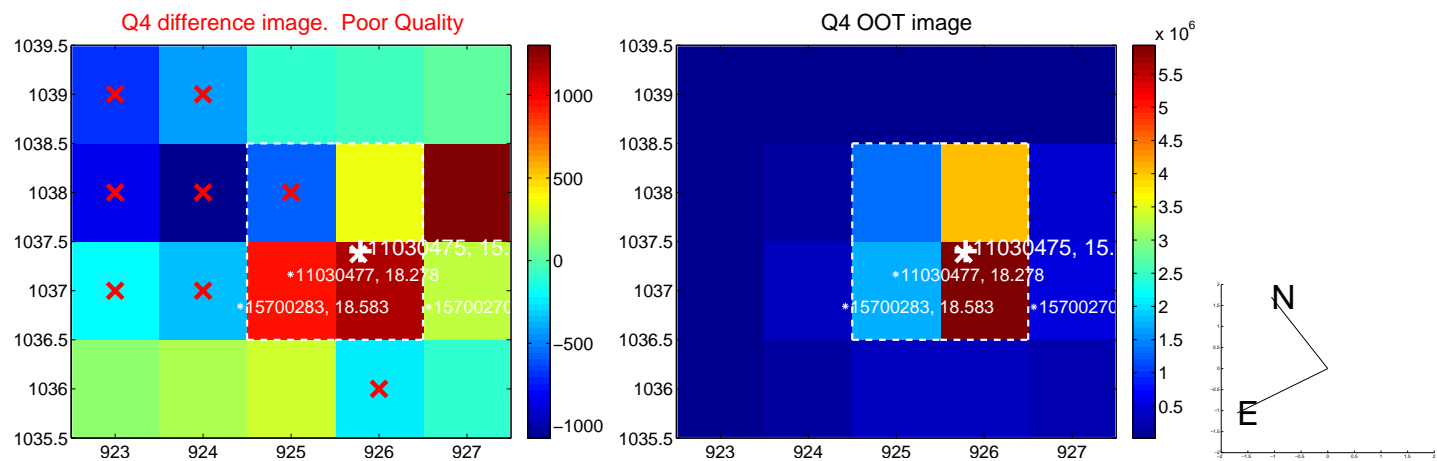
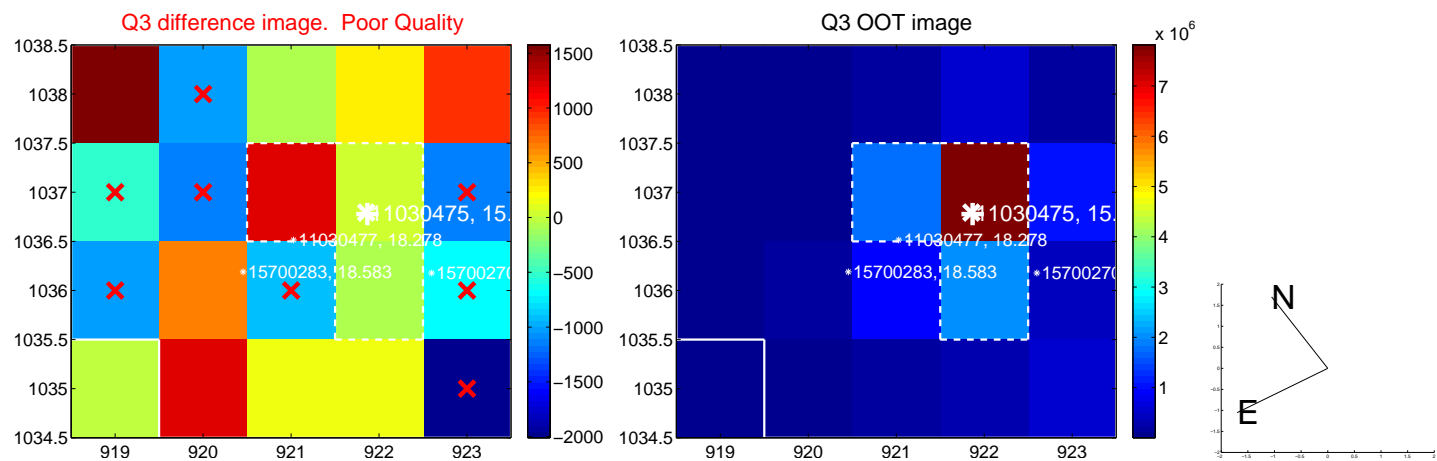
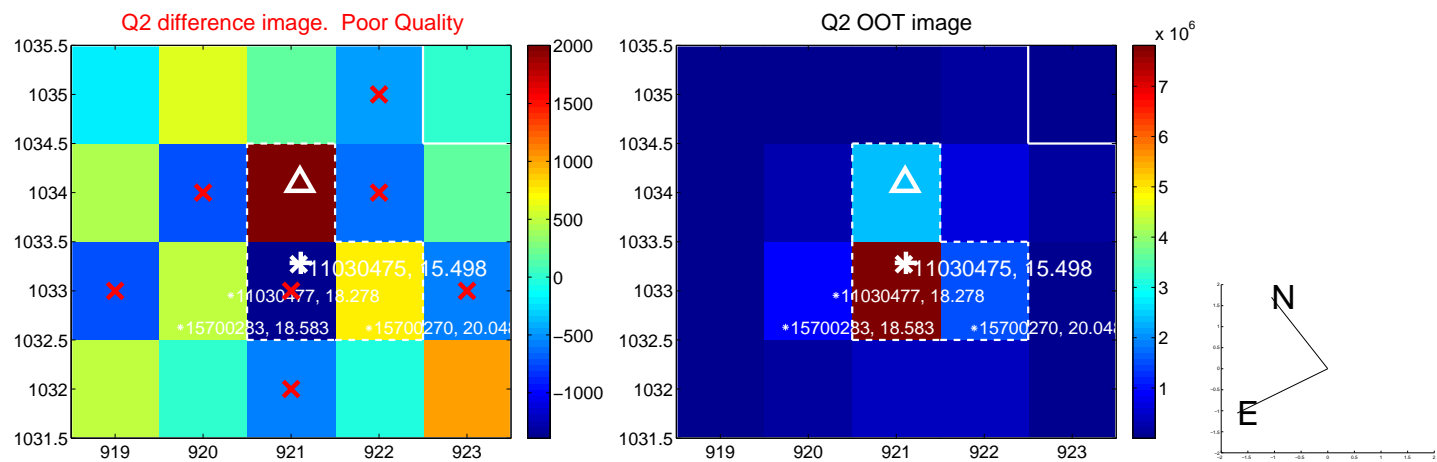
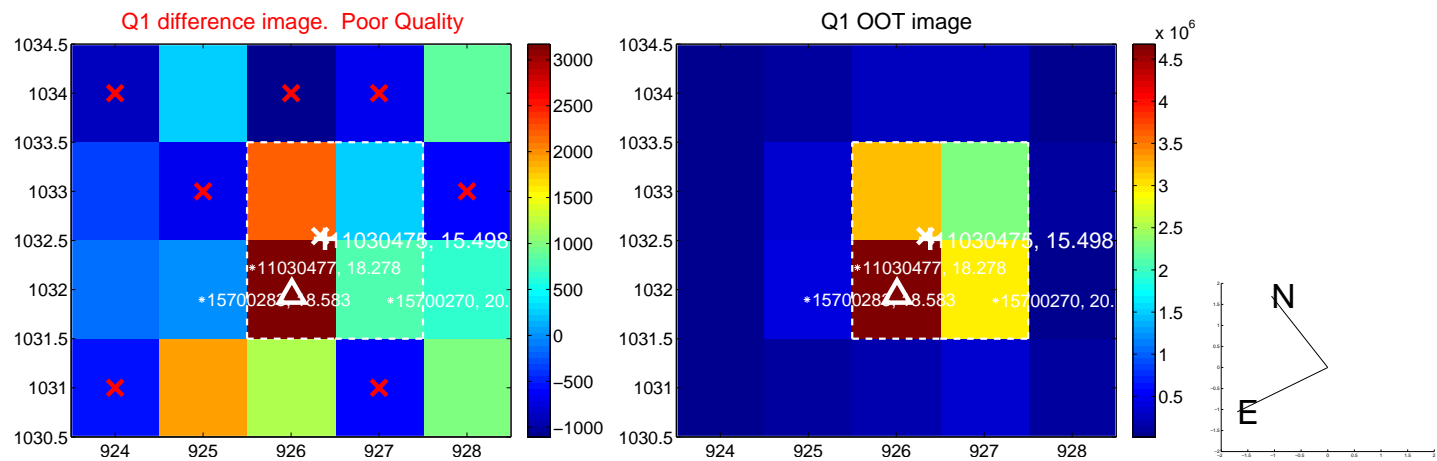
The direct PRF centroid is offset from the target star catalog position by about 0.27 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.505 ± 0.672	0.75	0.181 ± 0.646	-0.471 ± 0.563
PRF-fit source offset from KIC position	0.412 ± 0.591	0.70	0.170 ± 0.608	-0.375 ± 0.498
photometric centroid source offset	1.05 ± 1.17	0.90	-0.82 ± 1.18	-0.65 ± 1.16

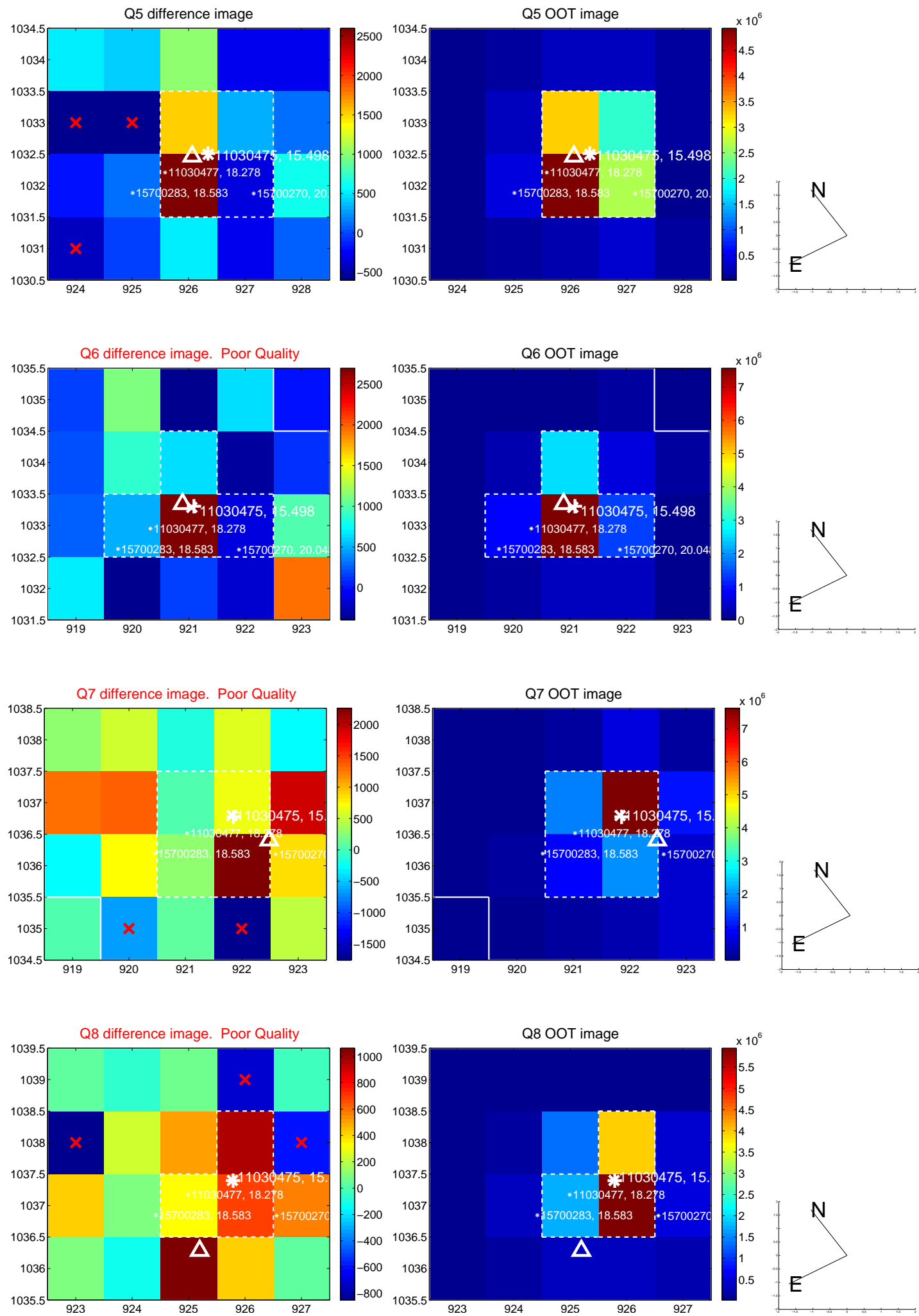


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

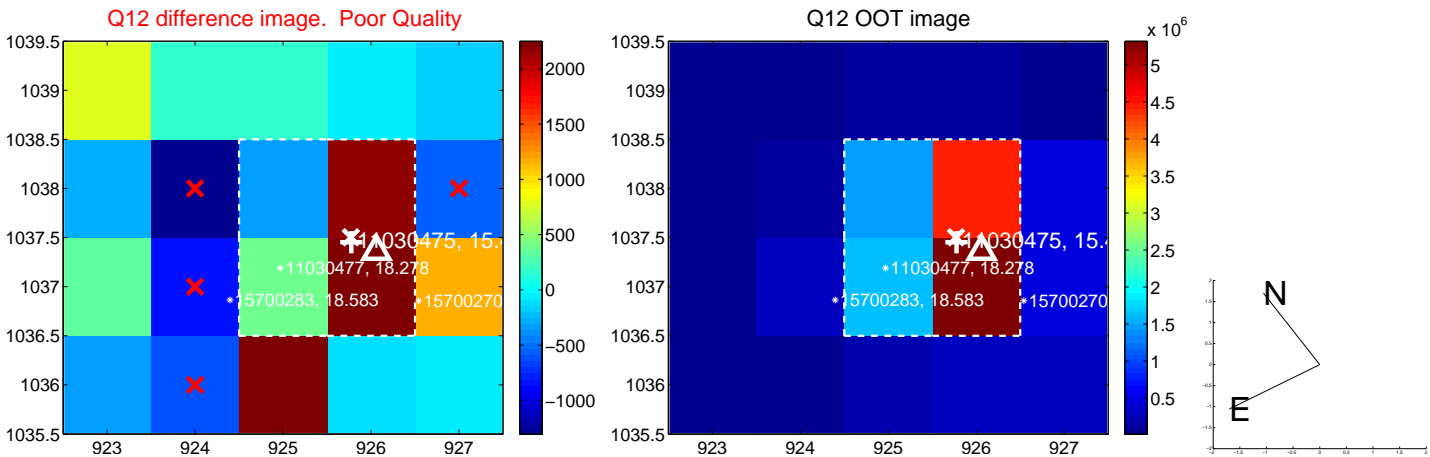
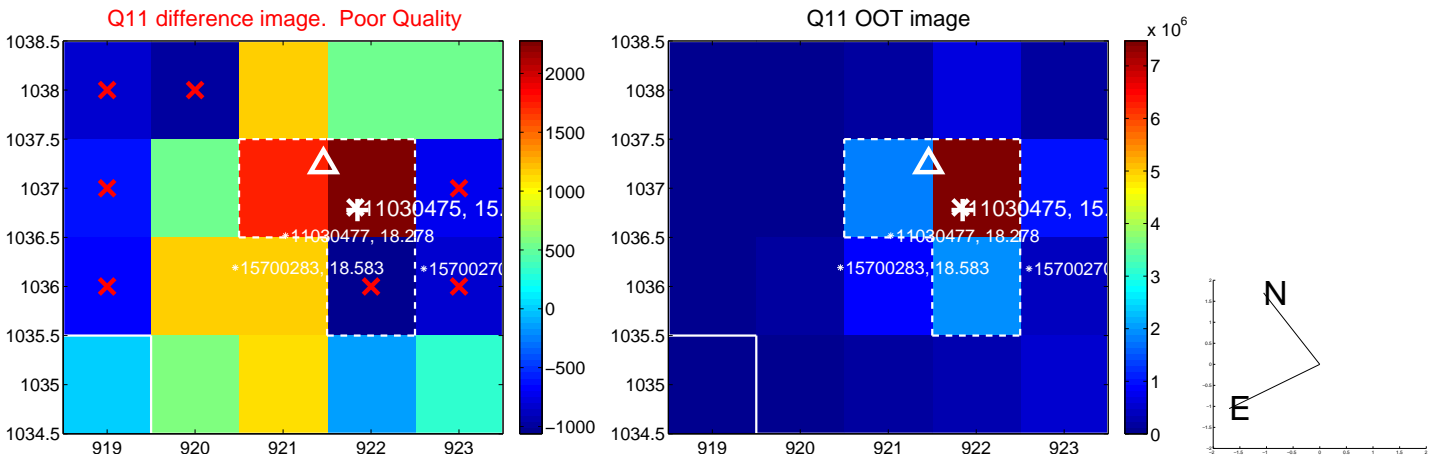
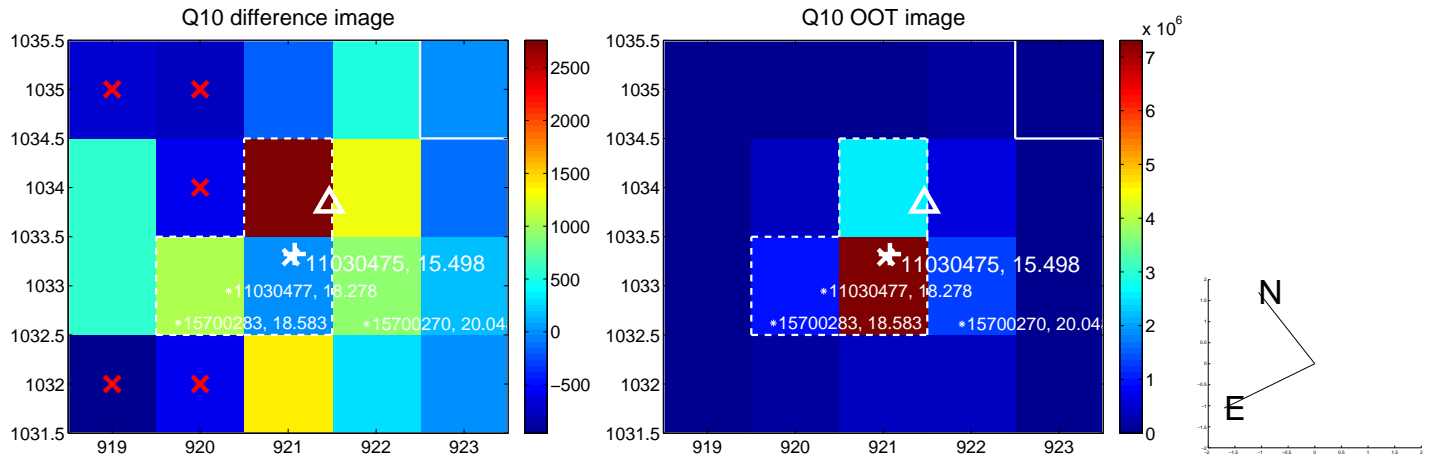
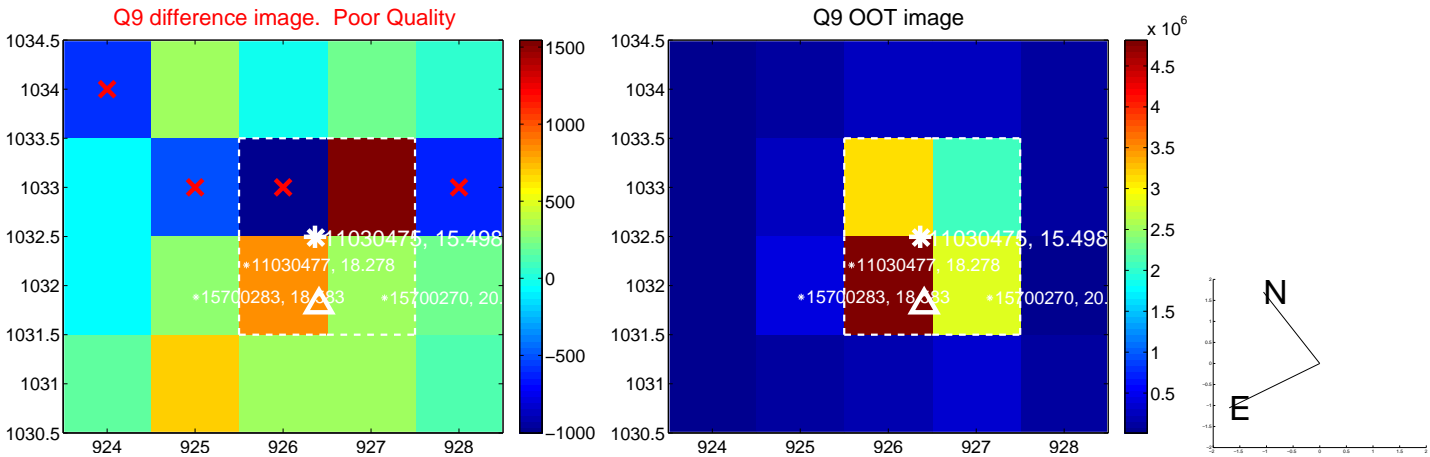
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



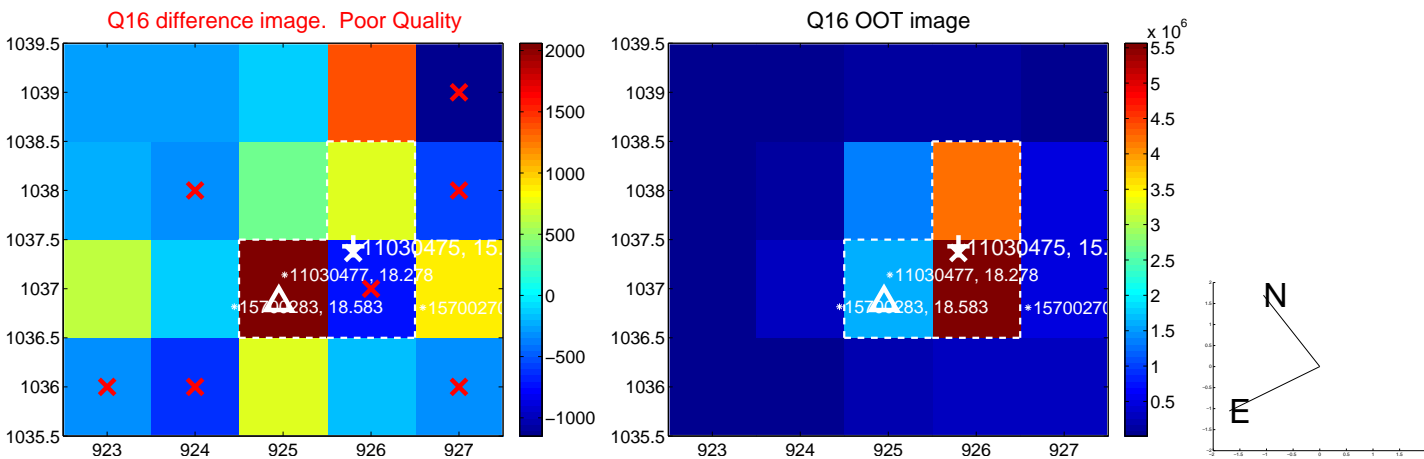
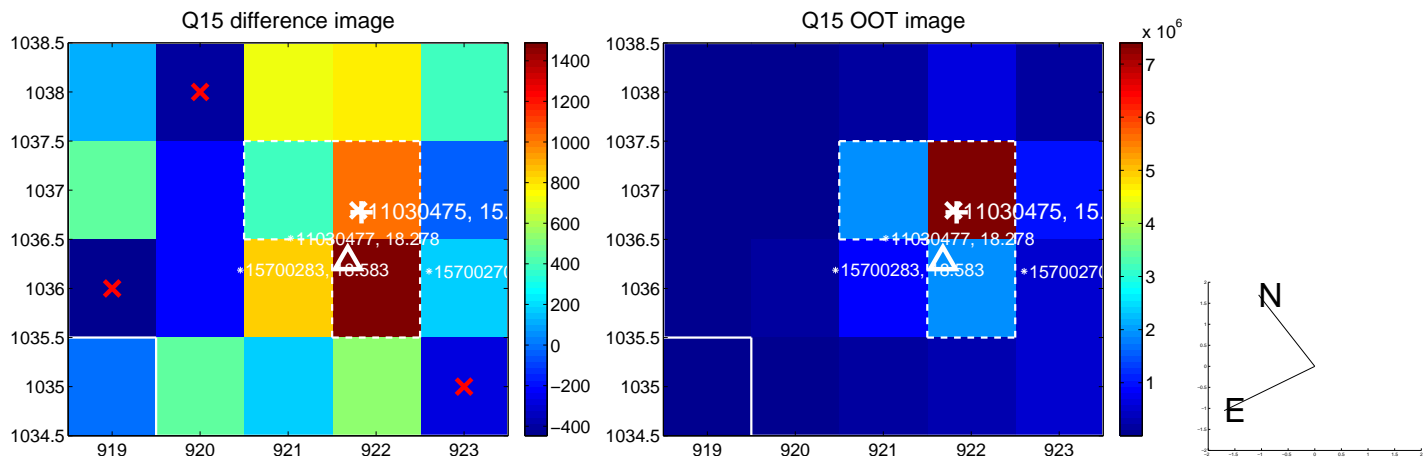
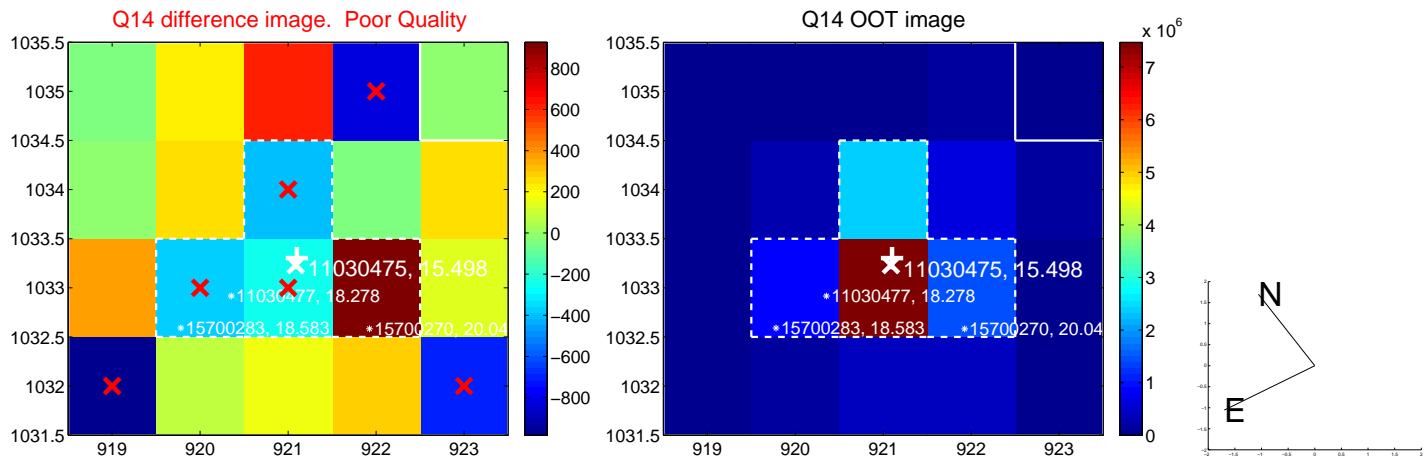
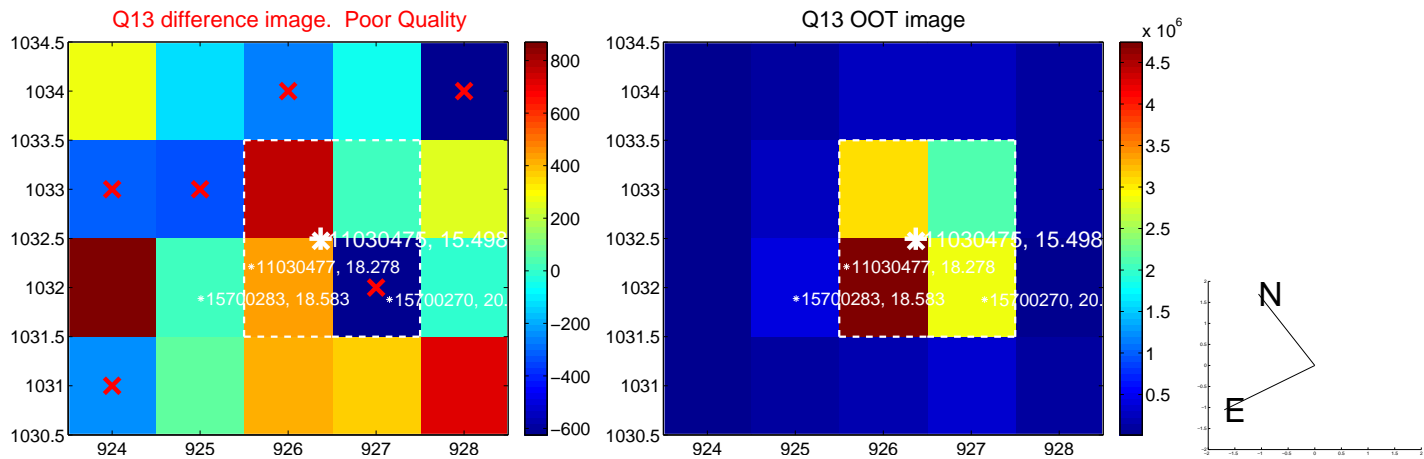
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



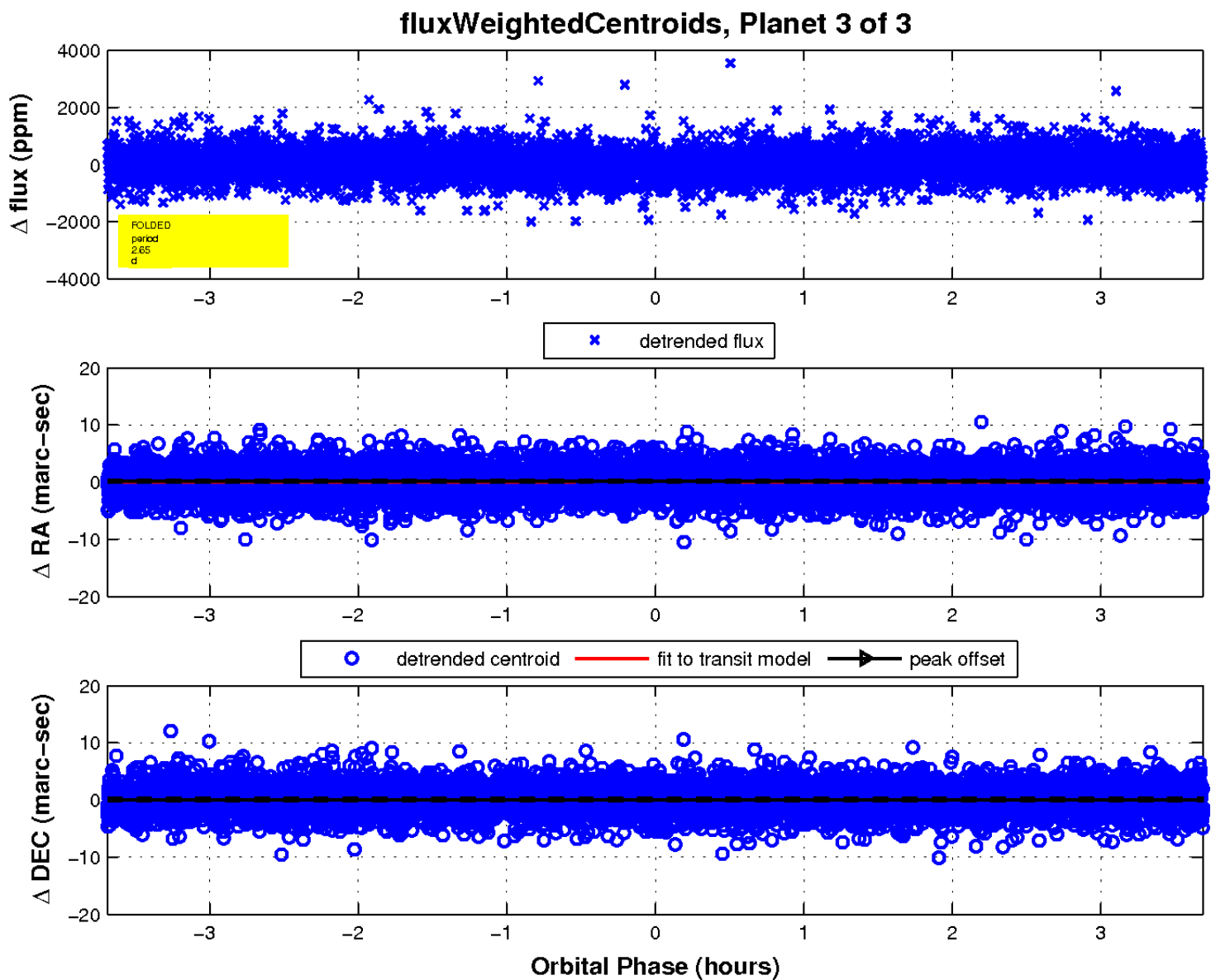
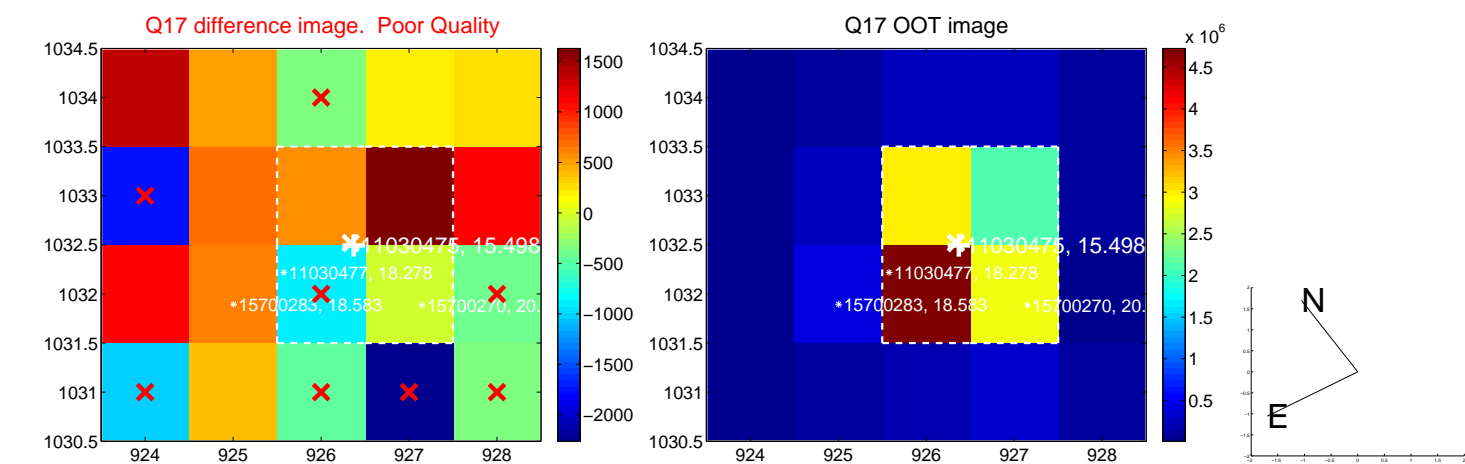
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

